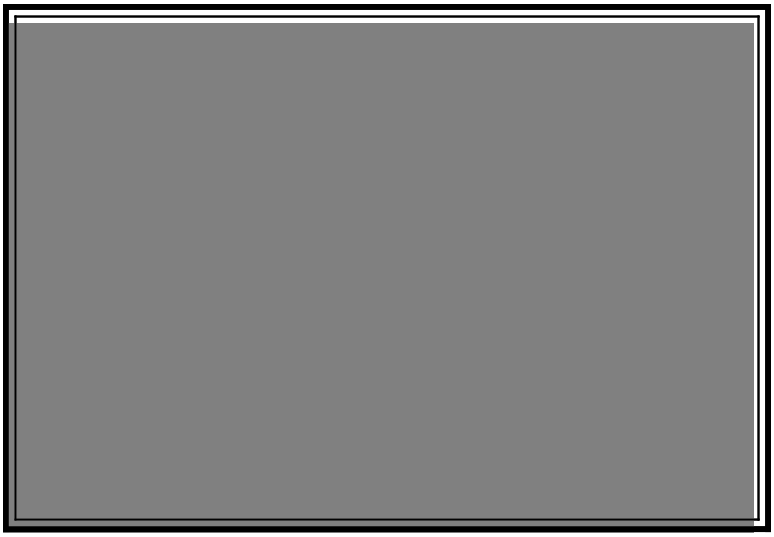
# Washington Economic and Revenue Forecast



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## *Explanation of the Cover Graph*

*The decline of Washington's aircraft manufacturing industry over the last several years is well documented. From December 1989 to June 1995, aircraft manufacturing employment was cut 28,800 or 27 percent. Less appreciated is the explosion of the prepackaged software industry in Washington State. During this same period, software employment grew 11,900. From a base of only 5,700 in December of 1989, this represents a remarkable 209 percent increase in just five and one-half years. The gain in software employment offset 41 percent of the aircraft manufacturing employment decline. The impact on the region's income is even more startling, however. At $49,400 in 1994, the average annual wage in aircraft manufacturing is among the state's highest, but it pales in comparison to the $92,000 average wage in software. Evaluated at the 1994 average wage rate, the lower aircraft manufacturing employment costs the local economy $1,421 billion per year but the higher software employment adds $1,091 billion. In other words, the growth in software offset 77 percent of the wage loss associated with the aircraft manufacturing cuts, softening the impact on the state's economy.*

# Washington Economic and Revenue Forecast

Prepared by the
Office of the Forecast Council

November 1995
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# Preface

The Office of the Forecast Council is required by Chapter 231, Section 34, Laws of 1992 (RCW 82.33.020) to prepare a quarterly state economic and revenue forecast and submit it to the Forecast Council. This report presents the state's economic and General Fund-State revenue forecast. It is issued four times a year.

Copies are available to Washington State businesses and residents for $4.50 per copy, and to those out-of-state for $9.00 per copy. You may contact our office for more subscription information at (360) 586-6785 or by writing the Office of the Forecast Council, Post Office Box 40912, Olympia, WA. 98504-0912.

# Table of Contents

# List of Tables

## 1 Washington State and U.S. Economic Forecast



## 2 Washington Business Indicators



## 3 Washington State Revenue Forecast

## 4 Special Report: Forecasting County Taxable Retail Sales



## Appendices

***Detail Components of the Washington Economic Forecast***

# List of Charts

## 1 Washington State and U.S. Economic Forecast



## 2 Washington Business Indicators

Chapter 1

# Washington State and U.S. Economic Forecasts

## Recent U.S. Economic Activity

This forecast was produced prior to the advance GDP estimate for the third quarter of 1995. According to the advance estimate, real GDP growth accelerated to 4.2 percent in the third quarter of 1995 from 1.3 percent in the second quarter. The forecast had expected GDP growth of only 2.2 percent. Two-thirds of the forecast error in the third quarter was the result of much stronger than anticipated inventory accumulation. While the forecast expected the growth of inventories to slow from $34.3 billion in the second quarter to $17.1 billion in the third quarter, it actually increased slightly to $35.3 billion. The forecast for final sales in the third quarter was much closer to the mark, growing 4.2 percent compared to 3.5 percent in the forecast. Consumer spending was up 2.9 percent in the third quarter compared to an expected increase of 3.3 percent. Purchases of durable goods surged 11.7 percent but nondurable goods spending was up only 0.1 percent. Consumer spending on services rose 2.2 percent in the quarter. Fixed investment was a strong positive in the third quarter, though, up 8.9 percent compared to an expected increase of 5.6 percent. After two quarters of decline, residential investment jumped 10.9 percent in the third quarter. Business fixed investment was also strong in the quarter, rising 8.3 percent. Purchases of producers' durable equipment surged 9.7 percent in the quarter while nonresidential construction rose 3.5 percent. As expected, the foreign sector was roughly neutral in the third quarter as a 10.6 percent increase in exports slightly outweighed an 8.6 percent increase in imports. A positive contribution to GDP growth from government purchases of goods and services was also expected in the forecast. Federal government purchases rose 4.9 percent in the third quarter. Military spending increased only 2.1 percent in the quarter but other federal government purchases climbed at a 10.2 percent rate. State and local governments increased their purchases of goods and services by 2.1 percent in the quarter.

The advance GDP estimate for the third quarter indicates a growth rate well above the long-term potential of the economy. This would be cause for concern were it not for the fact that most of the error was in inventory accumulation. The postponement of the inventory correction is likely to mean slower growth in the future. Having apparently achieved a "soft landing" in 1995, the Federal Reserve reversed course on July 6, cutting the federal funds rate to 5.75 percent. While no further rate cuts are expected this year, the fed funds rate is expected to decline to 5.25 in the first half of 1996. The forecast expects strong growth in nonresidential building and exports in 1996 and healthy growth in consumption spending. Growth of producer's durable equipment is expected to slow from the double-digit pace of recent years to more moderate, but still positive, rates of growth. The federal government will continue to contract, however. The forecast calls for real GDP to slow from 4.1 percent in 1994 to 3.0 percent in 1995 and 2.4 percent in 1996. Growth is expected to accelerate to 2.6 percent in 1997, however. Inflation is expected to remain subdued throughout the forecast. The implicit price deflator for personal consumption expenditures, which rose only 2.1 percent in 1994, is expected to increase 2.3 percent in 1995 and 1996, and 2.5 percent in 1997.

## U.S. Forecast Highlights

1. Real GDP growth accelerated to 3.9 percent in fiscal 1995 from a strong 3.5 percent in 1994. Though the quarterly data indicate a slowdown is already under way, the forecast does not expect a recession. Growth is ex-

pected to slow to 2.3 percent in fiscal 1996 before recovering to 2.6 percent in 1997.

2. Inflation, as measured by the implicit price deflator for personal consumption expenditures, accelerated slightly in fiscal 1995 to 2.4 percent from a 29 year low 2.1 percent in 1994. Slower real growth during 1995 should be sufficient to prevent a serious acceleration of inflation through the forecast horizon. The inflation rate is expected to dip to 2.1 percent in 1996 rising to 2.5 percent in 1997.

3. With growth slowing in 1995 but remaining positive, the economy appears to have achieved the desired "soft landing." The Federal Reserve, which lowered the federal funds rate from 6.00 percent to 5.75 percent in July, will wait until next year before making its next rate cut. The Federal funds rate is expected to drop to 5.25 percent in early 1996 and remain at that level throughout the forecast. The three month Treasury Bill will follow suit, declining to just under 5.00 percent in early 1996. The mortgage rate, which peaked at 9.10 percent in the fourth quarter of 1994, is expected to continue to decline through the first quarter of 1996. Long-term rates are expected to hover at about 7.50 percent through the rest of the forecast.

4. Housing starts declined 16.3 percent in the first half of 1995 from a cyclical peak of 1.511 million units in the fourth quarter of 1994 to 1.265 million units in the second quarter of 1995. Lower mortgage interest rates prompted a modest rebound in the third quarter with starts recovering to 1.391 million units. Rising mortgage interest rates and declining consumer confidence are expected to result in declining housing starts throughout 1996, however.

5. Despite the slowdown in real growth in 1995, the unemployment rate has remained low. The third quarter rate of 5.63 percent was only one-tenth of a percent higher than the cyclical low 5.53 percent reached in the first quarter of 1995. The forecast expects continued moderate real growth to result in a gradually increasing unemployment rate. The unemployment rate is expected to edge back towards the 6.00 rate consistent with stable inflation in 1996 and 1997.

6. Thanks to strong growth, discretionary spending cuts, and the 1993 tax increases, the federal budget deficit continued to drop in fiscal 1995 to $148.3 billion from $191.6 billion in 1994 and $271.6 billion in 1993. Regardless of the outcome of the budget negotiations, sluggish economic growth is expected to push the deficit up to $159.8 billion in fiscal 1996. Continued fiscal restraint and stronger growth cause the deficit to dip to $149.5 billion in 1997, however.

7. The trade deficit (national income and product accounts basis) will continue to worsen in fiscal 1996 to $124.3 billion from $111.1 billion in 1995. The near-term outlook for the United States' three largest trading partners — Canada, Japan, and Mexico — is poor while import growth remains strong. The trade gap is expected to shrink to $115.5 billion in 1997, though.

Table 1.2 provides a fiscal year summary of the U.S. economic indicators.

**Recent Economic Activity in Washington**

The Employment Security Department has released preliminary employment estimates through September 1995. This forecast is based on adjusted employment estimates through September 1995 as described in **Adjustments to Economic Data**. The adjusted employment estimates indicate that total nonfarm employment growth in-

creased sharply in the third quarter to 2.9 percent from a revised 0.1 percent in the second quarter. The second quarter estimate was based on very preliminary and largely unedited employment and payrolls data, however, and is subject to larger than normal revisions. The fact that employment declined sharply in April, the first month of the quarter, suggests that the entire second quarter and all subsequent estimates may eventually be revised up. Even with the weak second quarter growth, however, Washington's year-over-year employment growth in the third quarter of 2.4 percent continued to exceed the national average growth rate of 2.0 percent. Manufacturing employment fell 5,800 in the third quarter, which represents a 6.6 percent rate of decline. Durable goods manufacturing employment fell 4,900, an 8.3 percent reduction from the first quarter. A 6,000 reduction in aerospace employment more than accounted for the declines in both durable manufacturing and total manufacturing employment. Most of the aerospace cuts were early retirement s rather than layoffs, however. Employment in nonelectrical machinery was up 500 in the third quarter while electrical machinery employment increased 400. Nondurable manufacturing employment was also down in the third quarter, falling 800 for an average annual rate of 3.0 percent. Food and kindred products accounted for the entire decline in nondurable manufacturing. In contrast to the manufacturing decline in the third quarter, nonmanufacturing was up 22,700 in the quarter for an average annual growth rate of 4.6 percent. Nearly half the nonmanufacturing growth was in services which rose 11,100 for a 7.3 percent increase. Trade employment was also strong in the quarter, up 6,700 or 4.7 percent.

Since the September 1995 forecast, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) has revised its quarterly state personal income estimates through the first quarter of 1995 and released preliminary estimates for the second quarter. In addition, the wage estimates for the first two quarters of 1995 have been adjusted to reflect Covered Employment and Payrolls data produced by the Employment Security Department (see **Adjustments to Economic Data**.) The first quarter personal income estimate of $126.921 billion represents a reduction of $0.663 billion (0.5 percent) from the September forecast. The estimate for wage and salary disbursements in the second quarter was $0.450 billion (0.6 percent) lower than the September forecast assumed. The nonwage personal income estimate was $213 billion (0.4 percent) lower than expected in September. Proprietor's income was $241 million lower than expected in September and transfer payments were $308 million lower but dividends, interest, and rent were $173 million higher.

The number of housing units authorized by building permits fell to 34,500 in the third quarter of 1995 from 41,800 in the second quarter. The third quarter was the weakest for housing permits since 1991. Nearly all the decline was in the volatile multi-family component which plummeted from 15,000 in the second quarter to 8,500 in the third quarter. Single family permits held up better in the third quarter, dropping to 26,000 from 26,800 in the previous quarter.

**Adjustments to Economic Data**

Analysis of the preliminary covered employment and payrolls data for the second quarter of 1995 indicates that the BEA's preliminary personal income estimate for wage and salary disbursements is too low. Since the BEA will eventually benchmark its wage and salary estimates to the covered employment and payrolls data for all sectors except agriculture and the federal government, wage and salary disbursements for these industries have been adjusted up a total of $431 million in the second quarter. Unadjusted BEA estimates were used for farm, federal civilian, and military wages as well as all nonwage components of personal income.

This forecast utilizes alternative employment estimates which incorporate covered employment

and payrolls data through the second quarter of 1995. In addition, the employment estimates for the third quarter of 1994 through the second quarter of 1995 have been adjusted up by 2,900 to reflect the average historical revision to the covered employment and payrolls data. Finally, the employment pattern from June 1995 to September 1995 has been adjusted to reflect the average revision between the growth in the preliminary, sample based employment estimates and the final, covered employment and payrolls based estimates during these months. Analysis of past revisions to the current employment statistics indicates that the current employment statistics understate employment growth in the June to September period at an average annual rate of 2.2 percent. This forecast assumes an average revision to the CES data on an industry by industry basis for each month since June. Thus, rather than increasing at a 0.5 percent average annual rate during this period, this forecast assumes employment has been increasing at a 2.7 percent rate.

**Washington State Forecast Highlights**

The Boeing employment cutbacks are assumed to be over for 1995. Washington aerospace employment is expected to decline 2,000 during 1996, however. The Department of Energy recently announced layoff notices affecting 300 Hanford employees. The latest announcement brings the 1995 reductions to 4,500. The forecast assumes reductions of another 2,000 Hanford employees during 1996. The electrical machinery employment forecast incorporates Intel's announcement that it will build a plant at DuPont. The Intel plant is assumed to increase employment in this sector by 2,000 during 1996 and 1997.

The forecast assumes that the strike by 22,500 Boeing machinists will last 45 days. If so, the striking machinists will not be counted as employed in October or November but will be counted in December. The strike is expected to result in the loss of $154 million in wages during the fourth quarter of 1995. Aside from the direct impact on aerospace employment and wages, the economic impact is expected to be minimal. The strike does distort the data for 1995 and 1996, however, as is illustrated in table 1.1.

1. Real personal income growth increased to 3.1 percent in fiscal 1995 from 2.0 percent in 1994. Stronger employment growth and

TABLE 1.1
**Boeing Strike Impact**

| | 1995:4 | 1996:1 | 1995 | 1996 |
|---|---|---|---|---|
| **Aerospace Employment, % Ch** | | | | |
| November Forecast | (56.4) | 120.8 | (11.7) | (1.4) |
| Without the Strike | (1.2) | (2.4) | (7.6) | (5.8) |
| Difference | (55.1) | 123.2 | (4.1) | 4.4 |
| **Manufacturing Employment, % Ch** | | | | |
| November Forecast | (16.0) | 20.4 | (1.0) | 0.4 |
| Without the Strike | 0.9 | 0.2 | 0.1 | (0.7) |
| Difference | (16.9) | 20.2 | (1.1) | 1.1 |
| **Total Nonfarm Employment** | | | | |
| November Forecast | 0.4 | 5.1 | 2.4 | 2.7 |
| Without the Strike | 3.0 | 2.5 | 2.6 | 2.5 |
| Difference | (2.6) | 2.6 | (0.2) | 0.2 |
| **Total Personal Income, % Ch** | | | | |
| November Forecast | 3.4 | 7.2 | 6.0 | 5.6 |
| Without the Strike | 5.4 | 5.1 | 6.1 | 5.4 |
| Difference | (2.0) | 2.0 | (0.1) | 0.1 |

higher interest rates were largely responsible for the improvement. Real income growth is expected to increase again in 1996 to 3.6 percent before slowing to 2.9 percent in fiscal 1997.

2. Nominal personal income growth also increased in fiscal 1995 to 5.6 percent from 4.2 percent the previous year as a result of stronger real growth and an increase in inflation. Personal income growth should increase only slightly in 1996 as strong real growth is offset by a drop in inflation. The forecast expects income growth of 5.8 percent in 1996 and 5.5 percent in 1997.

3. Washington wage and salary employment surged 2.8 percent in fiscal 1995, the strongest showing since 1990. Despite continued cutbacks in aerospace, manufacturing employment posted a 0.6 percent gain for the first increase in this sector since 1990. Employment growth is expected to decelerate as the U.S. economy slows. The forecast calls for employment growth of 2.2 percent in 1996 rebounding to 2.8 percent in 1997.

   - Lumber and wood products employment was unchanged in the third quarter of 1995 at 35,800. Employment in this sector has shown little change since 1991. Employment remains 6,700 lower than the cyclical peak in the fourth quarter of 1988. Timber supply constraints have reduced Washington's share of the nation's wood products employment. Little change is expected in lumber and wood products employment through the remainder of the forecast. By the end of 1997 employment is expected to have declined 300 to 35,600.

   - Aerospace employment plummeted 6,000 in the third quarter of 1995 to 81,500 as the bulk of the early retirements took effect. Washington aerospace employment has declined 36,400 since a peak of 117,900 in the first quarter of 1990. Because the striking machinists are not counted as employed, the forecast assumes reduction of 15,300 in the fourth quarter. Excluding the impact of the strike, however, the fourth quarter drop shrinks to 300. The forecast anticipates a decline 0f 2,000 in 1996 bringing the total reduction to 38,700 since the peak in the first quarter of 1990. Aerospace employment is expected to be flat in 1997.

   - Construction employment increased 1,700 in the third quarter of 1995 to 124,500. While the construction boom of the late 1980's ended in mid 1990, employment has continued to growth over the last five years at an average rate of 1.0 percent per year. Only modest construction employment growth is expected in the forecast, however, due to slower population growth and weaker housing activity. Construction employment is expected to increase 400 in the fourth quarter of 1995 and another 2,400 in 1996 and 1997.

   - Employment growth in the finance, insurance, and real estate sector turned positive in the third quarter of 1995, edging up at a 0.3 percent annual rate. Employment in this sector fell 3.4 percent during the previous five quarters following a 5.8 percent increase in the year before that. The swing in employment was concentrated in finance, a result of the surge and unwinding of the refinancing boom that resulted from the low interest rates of late 1993 and early 1994. Employment in this sector is expected to grow at an average annual rate of 1.4 percent through 1997.

- Retail trade employment increased at a 4.1 percent rate in the third quarter of 1995 following a 1.8 percent decline in the second quarter. Employment growth is expected to continue at 4.1 percent in the fourth quarter of 1995 slowing to an average rate of 3.2 percent in 1996 and 1997.

- Employment in the services sector continued to show strong growth, increasing at a 7.3 percent annual rate in the third quarter of 1995. Department of Energy reductions related to the Hanford cleanup effort are expected to result in the loss of 6,500 jobs during 1995 and 1996. With over 600,000 employed in the services sector, however, the Hanford reductions will shave about a half of one percent from the annual growth rate during this period. Services employment is expected to grow at an annual rate of 5.2 percent in the fourth quarter of 1995 and at a 4.3 percent during the final two years of the forecast.

- State and local government employment growth slowed to 2.8 percent in the third quarter of 1995 from 4.5 percent in the second. Growth is expected to slow further to 2.5 percent in the fourth quarter. Moderate population growth and fiscal restraint are expected to hold growth to an annual average rate of 3.1 percent in 1996 and 1997.

4. The number of housing units authorized by building permit declined 5.5 percent in fiscal 1995 to 42,100 from a cyclical peak of 44,500 in 1994. In spite of lower mortgage interest rates, slower population growth is expected to hold permits to 36,200 in 1996 and 38,500 in 1997.

5. Inflation in the Seattle metropolitan area, as measured by the consumer price index for all urban consumers, increased to 3.5 percent in fiscal 1995 from 2.9 percent in 1994. Despite the uptick, the local inflation rate remains well below the cyclical high of 7.6 percent in 1991, though somewhat higher than the U.S. rate of 2.9 percent. As in the U.S. forecast, inflation is expected to remain moderate in the Seattle area. The Seattle CPI is expected to rise 2.6 percent in fiscal 1996 and 2.9 percent in 1997.

Table 1.3 provides a fiscal year summary of the state economic indicators.

**Alternative Forecasts**

As required by statute, two alternatives to the baseline forecast have also been adopted by the Forecast Council. One of these was based on more optimistic economic assumptions than the baseline and one was based on more pessimistic assumptions. These alternatives are summarized in Table 1.4.

The optimistic scenario assumes that a higher level consumer confidence and a continuation of the investment boom of the last four years spurs growth in late 1995 and 1996 while inflation remains moderate. The economy has the potential for stronger real growth without higher inflation due to the assumption of a higher rate of productivity growth and a lower full-employment unemployment rate than in the baseline. Because potential GDP growth is higher than in the baseline and inflation remains under control, the Fed's stance remains relatively accommodative. These adjustments were supplemented at the state level with higher personal income, a rebound in aerospace employment, and higher wage and price growth in Washington. Population growth, housing activity, and construction employment were also enhanced in the optimistic alternative. By the end of the 1995-97 biennium, Washington nonagricultural employment is 68,200 higher than in the baseline forecast and Washington personal income is $6.7 billion higher. The optimistic sce-

nario generated $729 million (4.1 percent) more General Fund-State Revenue in the 1995-97 biennium than did the baseline forecast.

In the pessimistic alternative forecast, the combination of high consumer debt and a stock market correction in the fourth quarter leads to a sharp decline in consumer confidence. In addition, the inventory correction is much more severe than expected in the baseline forecast. In this "hard landing" scenario, real GDP declines 0.9 percent from the peak in the third quarter of 1995 to the trough in the second quarter of 1996. Locally, the aerospace industry cuts employment even more sharply than in the baseline forecast, Washington wages and prices are weaker, and Washington personal income is lower. Population growth is lower in this scenario as are housing permits and construction employment growth. At the end of the 1995-97 biennium, Washington nonagricultural employment is 83,000 lower than in the baseline forecast and Washington personal income is $8.2 billion lower. The pessimistic scenario produced $864 million (4.9 percent) less revenue in 1995-97 than did the baseline forecast.

**Governor's Council of Economic Advisors Scenario**

In addition to the optimistic and pessimistic forecasts, the staff has prepared a forecast based on the opinions of the Governor's Council of Economic Advisors (GCEA) as summarized in Table 1.4. In the GCEA scenario, the U.S. and state forecasts were adjusted to match the average view of the Council members. The differences between the Governor's Council scenario and the baseline were trivial. The GCEA forecast for the U.S. expected slightly higher real growth in fiscal 1996 and slightly higher inflation in both years than did the baseline forecast. The GCEA forecast for short-term and long-term interest rates was also slightly higher in fiscal 1997. At the state level, the Governer's Council members expected slightly weaker real personal income growth in both years but the same nominal personal income growth due to the higher inflation assumption. The GCEA employment growth forecast was higher than the baseline in 1996, but lower in 1997. The Governor's Council also expected slightly more housing units authorized by building permit in 1996 than did the baseline but fewer in 1997. At the end of the 1995-97 biennium, Washington nonagricultural employment is 4,700 lower in the GCEA scenario than in the baseline forecast but Washington personal income is $0.1 billion higher. The Governor's Council scenario generated just $8 million (0.0 percent) more General Fund-State revenue in the 1995-97 biennium than did the baseline forecast.

TABLE 1.2 FISCAL YEARS

**U.S. Economic Forecast Summary**
Forecast 1996 to 1997

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| **Real National Income Accounts (Billions of 1987 Dollars)** | | | | | | | | |
| Real Gross Domestic Product | 4877.8 | 4870.9 | 4906.7 | 5058.0 | 5233.2 | 5439.7 | 5564.7 | 5710.2 |
| % Ch | 1.8 | -0.1 | 0.7 | 3.1 | 3.5 | 3.9 | 2.3 | 2.6 |
| Real Consumption | 3253.3 | 3264.2 | 3293.0 | 3404.4 | 3520.7 | 3633.1 | 3745.6 | 3850.9 |
| % Ch | 1.8 | 0.3 | 0.9 | 3.4 | 3.4 | 3.2 | 3.1 | 2.8 |
| Real Nonresidential Fixed Investment | 543.3 | 533.0 | 513.2 | 553.4 | 631.7 | 723.9 | 788.0 | 816.8 |
| % Ch | 0.8 | -1.9 | -3.7 | 7.8 | 14.2 | 14.6 | 8.9 | 3.7 |
| Real Residential Fixed Investment | 208.0 | 173.7 | 183.0 | 205.3 | 224.8 | 228.1 | 227.9 | 224.9 |
| % Ch | -6.1 | -16.5 | 5.4 | 12.2 | 9.5 | 1.5 | -0.1 | -1.3 |
| Real Personal Income | 4043.5 | 4056.7 | 4097.8 | 4214.6 | 4323.0 | 4499.5 | 4634.1 | 4740.1 |
| % Ch | 1.9 | 0.3 | 1.0 | 2.8 | 2.6 | 4.1 | 3.0 | 2.3 |
| Real Per Capita Income ($/Person) | 16,243 | 16,121 | 16,107 | 16,392 | 16,643 | 17,153 | 17,498 | 17,733 |
| % Ch | 0.9 | -0.8 | -0.1 | 1.8 | 1.5 | 3.1 | 2.0 | 1.3 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.119 | 1.177 | 1.216 | 1.252 | 1.278 | 1.309 | 1.336 | 1.370 |
| % Ch | 4.7 | 5.2 | 3.3 | 2.9 | 2.1 | 2.4 | 2.1 | 2.5 |
| U.S. Consumer Price Index (1982-84=1.0) | 1.270 | 1.340 | 1.383 | 1.426 | 1.463 | 1.505 | 1.548 | 1.594 |
| % Ch | 4.8 | 5.5 | 3.2 | 3.1 | 2.6 | 2.9 | 2.8 | 3.0 |
| Employment Cost Index (June 1989=1.0) | 1.027 | 1.068 | 1.105 | 1.134 | 1.169 | 1.203 | 1.241 | 1.281 |
| % Ch | 4.3 | 4.0 | 3.4 | 2.6 | 3.1 | 2.9 | 3.2 | 3.2 |
| **Current Dollar National Income (Billions of Dollars)** | | | | | | | | |
| Gross Domestic Product | 5406.6 | 5631.1 | 5856.2 | 6187.2 | 6525.5 | 6924.1 | 7219.3 | 7569.0 |
| % Ch | 6.2 | 4.2 | 4.0 | 5.7 | 5.5 | 6.1 | 4.3 | 4.8 |
| Personal Income | 4523.2 | 4774.7 | 4984.4 | 5275.8 | 5524.1 | 5890.3 | 6193.3 | 6496.1 |
| % Ch | 6.7 | 5.6 | 4.4 | 5.8 | 4.7 | 6.6 | 5.1 | 4.9 |
| **Employment (Millions)** | | | | | | | | |
| U.S. Civilian Labor Force | 124.5 | 125.1 | 126.0 | 127.5 | 129.6 | 131.8 | 133.4 | 135.7 |
| Total U.S. Employment | 117.9 | 117.3 | 117.1 | 118.3 | 121.1 | 124.3 | 125.8 | 127.8 |
| Unemployment Rate (%) | 5.28 | 6.21 | 7.12 | 7.19 | 6.52 | 5.69 | 5.66 | 5.80 |
| Wage and Salary Employment | 108.89 | 108.85 | 108.22 | 109.48 | 112.29 | 115.56 | 117.66 | 119.80 |
| % Ch | 2.0 | -0.0 | -0.6 | 1.2 | 2.6 | 2.9 | 1.8 | 1.8 |
| Manufacturing | 19.26 | 18.72 | 18.23 | 18.08 | 18.15 | 18.44 | 18.28 | 18.14 |
| % Ch | -0.8 | -2.8 | -2.6 | -0.8 | 0.4 | 1.6 | -0.9 | -0.7 |
| Durable Manufacturing | 11.26 | 10.83 | 10.40 | 10.24 | 10.29 | 10.56 | 10.52 | 10.35 |
| % Ch | -1.5 | -3.9 | -4.0 | -1.6 | 0.5 | 2.6 | -0.4 | -1.6 |
| Nondurable Manufacturing | 8.00 | 7.89 | 7.83 | 7.85 | 7.86 | 7.88 | 7.76 | 7.80 |
| % Ch | 0.3 | -1.3 | -0.8 | 0.2 | 0.1 | 0.3 | -1.5 | 0.4 |
| Nonmanufacturing | 89.63 | 90.13 | 89.99 | 91.40 | 94.14 | 97.13 | 99.38 | 101.65 |
| % Ch | 2.6 | 0.6 | -0.2 | 1.6 | 3.0 | 3.2 | 2.3 | 2.3 |
| Services | 27.49 | 28.14 | 28.63 | 29.60 | 30.80 | 32.19 | 33.43 | 34.67 |
| % Ch | 4.7 | 2.4 | 1.8 | 3.4 | 4.1 | 4.5 | 3.9 | 3.7 |
| **Miscellaneous Indicators** | | | | | | | | |
| Auto Sales (Millions) | 9.7 | 8.8 | 8.4 | 8.5 | 9.1 | 9.0 | 8.9 | 9.0 |
| % Ch | -5.7 | -9.0 | -4.9 | 1.0 | 6.8 | -0.9 | -0.6 | 0.9 |
| Housing Starts (Millions) | 1.330 | 1.020 | 1.131 | 1.204 | 1.396 | 1.393 | 1.363 | 1.255 |
| % Ch | -9.5 | -23.3 | 10.8 | 6.5 | 15.9 | -0.2 | -2.2 | -7.9 |
| Federal Budget Surplus (Billions) | -147.0 | -171.9 | -256.0 | -271.6 | -191.6 | -148.3 | -159.8 | -149.5 |
| Net Exports (Billions) | -72.2 | -48.7 | -19.0 | -48.2 | -83.1 | -111.1 | -124.3 | -115.5 |
| 3-Month Treasury Bill Rate (%) | 7.75 | 6.51 | 4.37 | 3.02 | 3.32 | 5.27 | 5.12 | 4.88 |
| 30-Year U.S. Govt. Bond Rate (%) | 8.29 | 8.46 | 7.93 | 7.23 | 6.59 | 7.54 | 6.50 | 6.38 |
| Mortgage Rate (%) | 10.07 | 9.77 | 8.84 | 7.85 | 7.47 | 8.60 | 7.58 | 7.56 |

TABLE 1.3 FISCAL YEARS

**Washington Economic Forecast Summary**
Forecast 1996 to 1997

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| **Real Income (Billions of 1987 Dollars)** | | | | | | | | |
| Real Personal Income | 80.737 | 83.160 | 86.292 | 90.110 | 91.956 | 94.787 | 98.188 | 101.046 |
| % Ch | 6.2 | 3.0 | 3.8 | 4.4 | 2.0 | 3.1 | 3.6 | 2.9 |
| Real Wage and Salary Disb. | 46.104 | 47.633 | 49.440 | 51.335 | 51.722 | 53.083 | 55.051 | 56.767 |
| % Ch | 5.8 | 3.3 | 3.8 | 3.8 | 0.8 | 2.6 | 3.7 | 3.1 |
| Real Nonwage Income | 34.633 | 35.527 | 36.852 | 38.775 | 40.234 | 41.704 | 43.137 | 44.279 |
| % Ch | 6.7 | 2.6 | 3.7 | 5.2 | 3.8 | 3.7 | 3.4 | 2.6 |
| Real Per Capita Income ($/Person) | 16,649 | 16,690 | 16,911 | 17,251 | 17,276 | 17,498 | 17,856 | 18,069 |
| % Ch | 3.3 | 0.2 | 1.3 | 2.0 | 0.1 | 1.3 | 2.0 | 1.2 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.119 | 1.177 | 1.216 | 1.252 | 1.278 | 1.309 | 1.336 | 1.370 |
| % Ch | 4.7 | 5.2 | 3.3 | 2.9 | 2.1 | 2.4 | 2.1 | 2.5 |
| Seattle Cons. Price Index (1982-84=1.0) | 1.219 | 1.312 | 1.365 | 1.411 | 1.452 | 1.502 | 1.541 | 1.587 |
| % Ch | 5.8 | 7.6 | 4.0 | 3.3 | 2.9 | 3.5 | 2.6 | 2.9 |
| Avg. Hourly Earnings-Mfg. ($/Hour) | 12.42 | 13.08 | 13.58 | 13.91 | 14.22 | 14.45 | 14.39 | 14.64 |
| % Ch | 1.7 | 5.3 | 3.8 | 2.4 | 2.3 | 1.6 | -0.4 | 1.7 |
| **Current Dollar Income (Billions of Dollars)** | | | | | | | | |
| Nonfarm Personal Income | 89.468 | 97.008 | 103.991 | 111.672 | 116.356 | 123.238 | 130.295 | 137.539 |
| %Ch | 11.2 | 8.4 | 7.2 | 7.4 | 4.2 | 5.9 | 5.7 | 5.6 |
| Personal Income | 90.322 | 97.889 | 104.965 | 112.798 | 117.502 | 124.085 | 131.227 | 138.480 |
| %Ch | 11.2 | 8.4 | 7.2 | 7.5 | 4.2 | 5.6 | 5.8 | 5.5 |
| Disposable Personal Income | 78.150 | 85.106 | 91.678 | 98.540 | 102.231 | 107.845 | 114.089 | 120.772 |
| %Ch | 10.9 | 8.9 | 7.7 | 7.5 | 3.7 | 5.5 | 5.8 | 5.9 |
| Per Capita Income ($/Person) | 18,624 | 19,644 | 20,569 | 21,594 | 22,074 | 22,906 | 23,863 | 24,762 |
| %Ch | 8.2 | 5.5 | 4.7 | 5.0 | 2.2 | 3.8 | 4.2 | 3.8 |
| **Employment (Thousands)** | | | | | | | | |
| Washington Civilian Labor Force | 2511.0 | 2524.3 | 2581.7 | 2681.0 | 2707.6 | 2748.3 | 2814.9 | 2876.8 |
| Total Washington Employment | 2372.9 | 2389.1 | 2402.4 | 2472.9 | 2517.9 | 2581.1 | 2636.7 | 2698.9 |
| Unemployment Rate (%) | 5.50 | 5.36 | 6.94 | 7.76 | 7.01 | 6.08 | 6.33 | 6.19 |
| Wage and Salary Employment | 2102.8 | 2160.5 | 2201.4 | 2235.8 | 2276.2 | 2339.2 | 2391.6 | 2459.4 |
| %Ch | 5.6 | 2.7 | 1.9 | 1.6 | 1.8 | 2.8 | 2.2 | 2.8 |
| Manufacturing | 369.2 | 360.2 | 349.9 | 344.4 | 337.4 | 339.5 | 330.4 | 336.6 |
| %Ch | 5.4 | -2.4 | -2.8 | -1.6 | -2.0 | 0.6 | -2.7 | 1.9 |
| Durable Manufacturing | 262.6 | 255.8 | 249.1 | 242.0 | 232.5 | 231.2 | 222.2 | 226.3 |
| %Ch | 5.4 | -2.6 | -2.6 | -2.9 | -3.9 | -0.6 | -3.9 | 1.8 |
| Aerospace | 117.0 | 115.3 | 114.8 | 107.8 | 96.5 | 89.4 | 77.2 | 79.4 |
| %Ch | 9.5 | -1.4 | -0.4 | -6.1 | -10.5 | -7.3 | -13.7 | 2.8 |
| Nondurable Manufacturing | 106.5 | 104.3 | 100.8 | 102.5 | 104.9 | 108.3 | 108.2 | 110.3 |
| %Ch | 5.4 | -2.1 | -3.4 | 1.6 | 2.4 | 3.2 | -0.1 | 2.0 |
| Nonmanufacturing | 1733.6 | 1800.3 | 1851.5 | 1891.3 | 1938.8 | 1999.7 | 2061.2 | 2122.8 |
| %Ch | 5.6 | 3.8 | 2.8 | 2.2 | 2.5 | 3.1 | 3.1 | 3.0 |
| Construction | 113.1 | 118.2 | 118.7 | 118.5 | 122.0 | 123.5 | 124.8 | 125.9 |
| %Ch | 11.6 | 4.5 | 0.4 | -0.1 | 3.0 | 1.2 | 1.1 | 0.9 |
| Services | 489.0 | 520.4 | 546.7 | 568.2 | 585.7 | 613.5 | 643.8 | 671.5 |
| %Ch | 7.0 | 6.4 | 5.1 | 3.9 | 3.1 | 4.7 | 4.9 | 4.3 |
| **Housing Indicators** | | | | | | | | |
| Housing Units Authorized (Thousands) | 53.472 | 36.858 | 36.941 | 38.245 | 44.523 | 42.053 | 36.207 | 38.494 |
| %Ch | 11.0 | -31.1 | 0.2 | 3.5 | 16.4 | -5.5 | -13.9 | 6.3 |
| Mortgage Rate (%) | 10.07 | 9.77 | 8.84 | 7.85 | 7.47 | 8.60 | 7.58 | 7.56 |

# Comparison of Washington and U.S. Economic Forecasts

CHART 1.1

**Total Nonagricultural Employment**

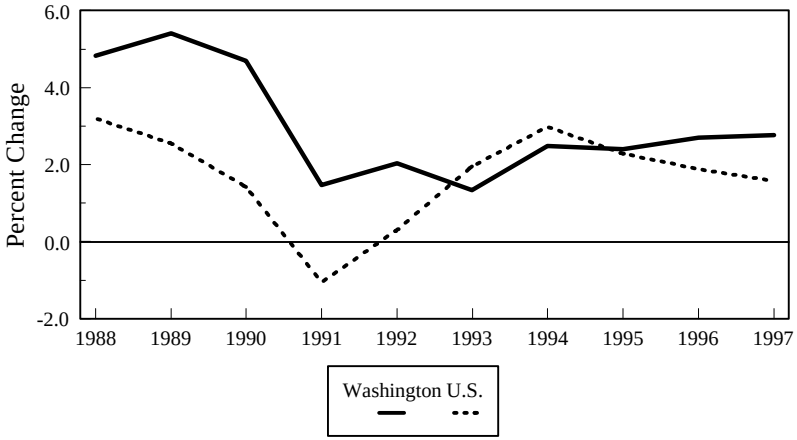



CHART 1.2

**Manufacturing Employment**

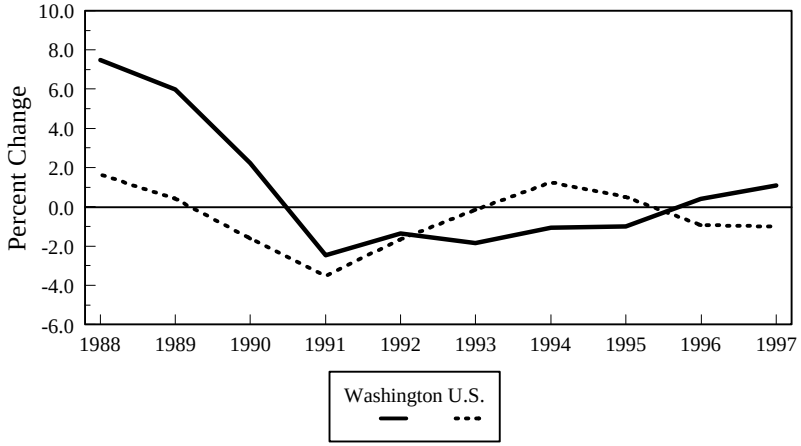



CHART 1.3

**Aerospace Employment**

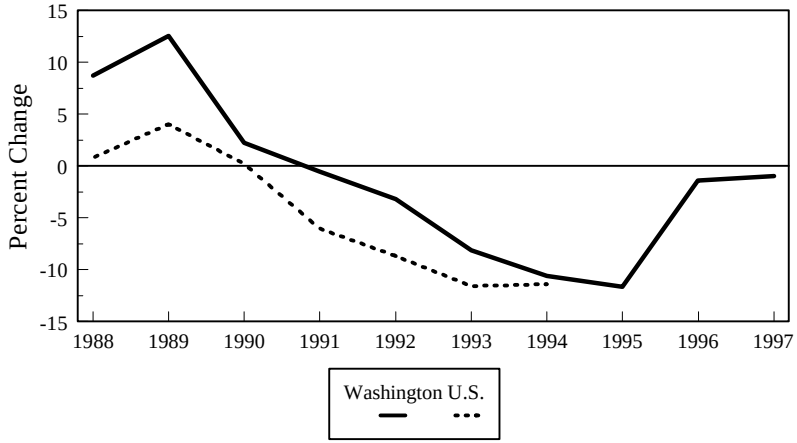
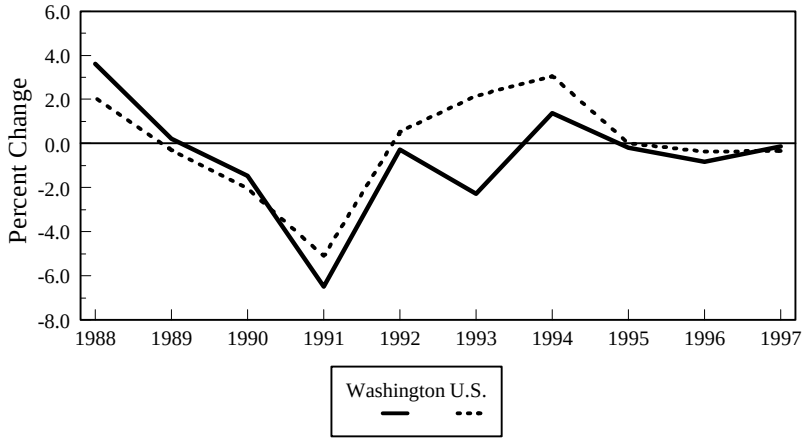



CHART 1.4

**Forest Products Employment**



# Comparison of Washington and U.S. Economic Forecasts

CHART 1.5

**Construction Employment**

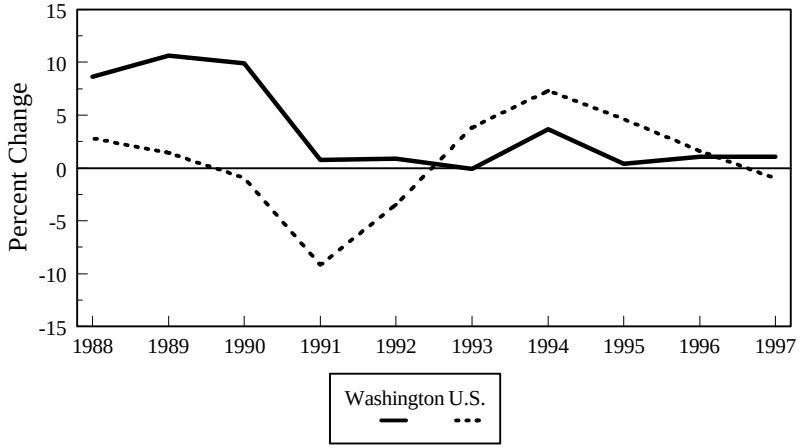



CHART 1.6

**Trade Employment**

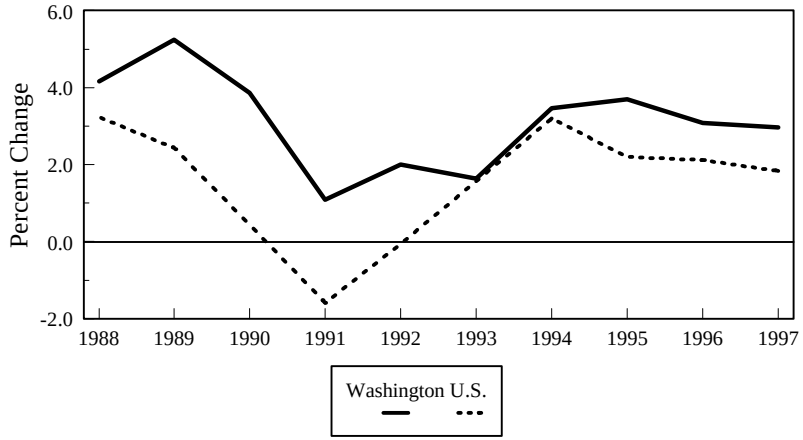



CHART 1.7

**Services Employment**

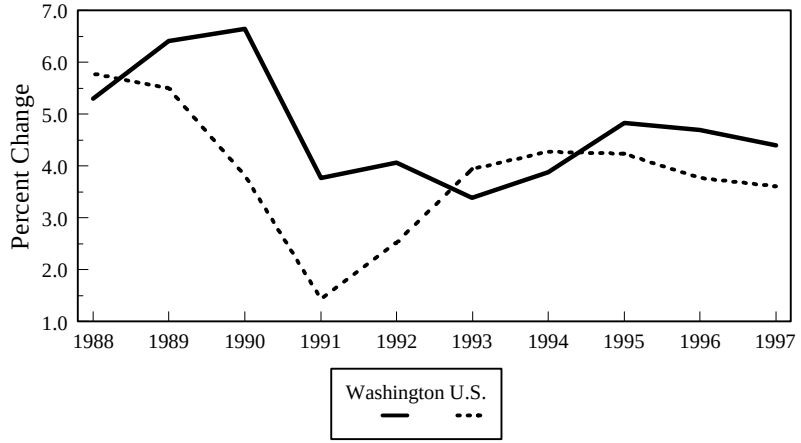
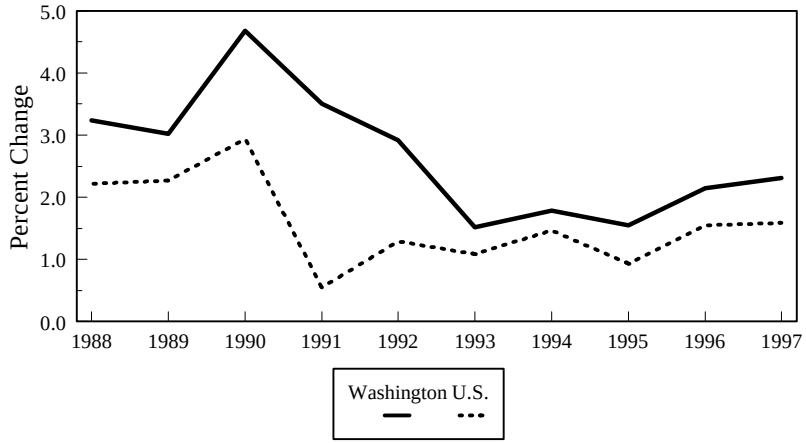



CHART 1.8

**Government Employment**



# Comparison of Washington and U.S. Economic Forecasts

CHART 1.9

**Real Personal Income**

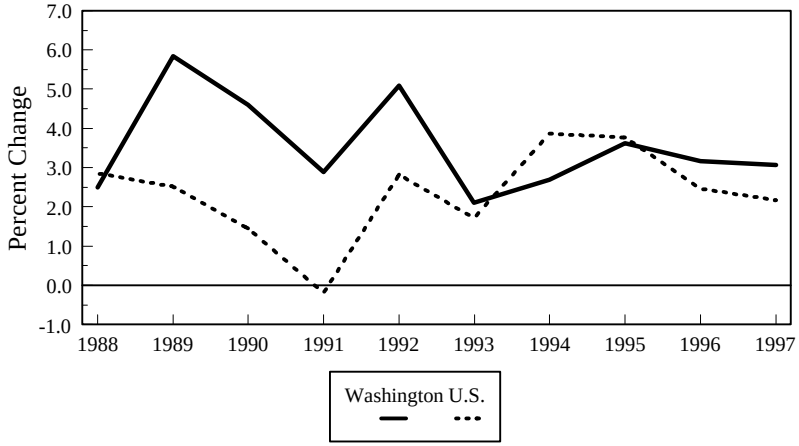



CHART 1.10

**Consumer Price Indices**

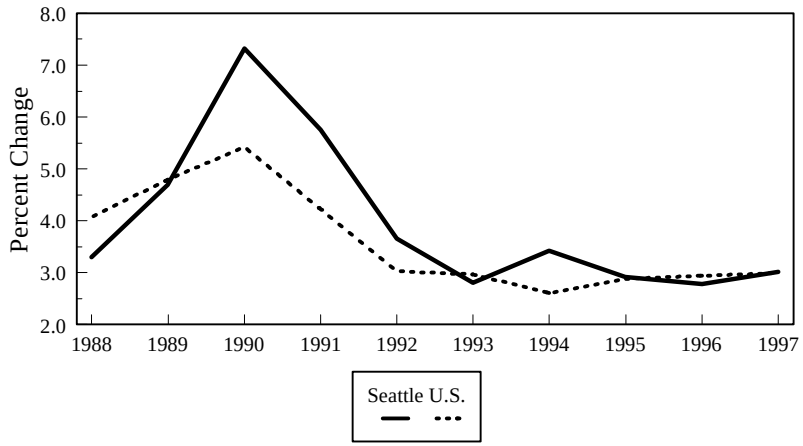



CHART 1.11

**Population**

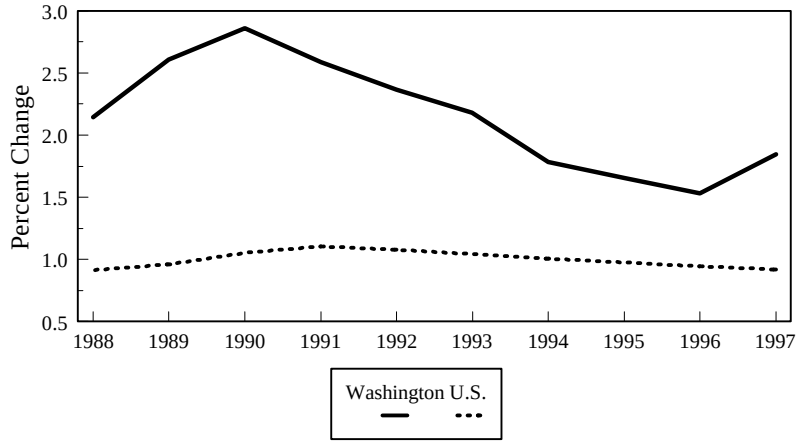
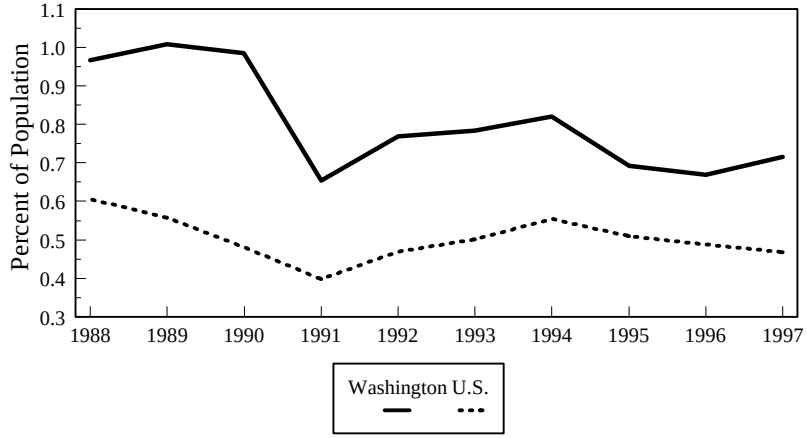



CHART 1.12

**Per Capita Housing Units**



Chapter 2

# Current Business Indicators

### State Economic Activity

The Boeing strike ended December 13 after 69 days. It was the third longest in Boeing's history—the 1947 strike lasted 148 days, and the 1977 strike, 77 days. As long as the strike lasted, and as important a presence that Boeing remains, the impact of the strike was not large. True, workers lost 10 weeks' worth of wages, and retail sales in Pierce, King, and Snohomish Counties have suffered. But these losses are temporary and will be largely offset, if not more than offset by the 10 percent bonus and other concessions won, by the extra income earned in second jobs during the strike, and by overtime wages workers will get as Boeing gets back to speed. Furthermore, Boeing did not lose sales, and its stock price rose 10 percent during the course of the strike and has risen over 60 percent since January, indicating that the market is bullish on Boeing's prospects.

### Leading Indicators

The state index of leading indicators fell 2.9 percent in October (Chart 2.5), the third largest drop ever. The Boeing strike, however, directly accounted for all but 0.1 percent of the decline (and indirectly accounted for more), with aerospace employment falling from 81.2 to 56.7 thousand (Chart 2.2). The changes in the other components of the index, except for the rise in unemployment claims (Chart 2.6), were not unusual. The increase in unemployment claims is distorted by the Boeing strike. Although striking workers are not ordinarily entitled to unemployment insurance, many workers (over 8,000) filed claims under the belief they would be able to collect benefits if the company were shown to have engaged in unfair labor practices (the Department of Employment Security has been rejecting these claims).

### Other Economic Indicators

The state and national purchasing managers' indices have been at odds in recent months. The state index has been strong, hovering around 60 in recent months. The national index has been edging down and currently stands at 46.5. When the index is 50, manufacturing purchasing managers are evenly divided on the direction of the near-term economy. Despite the Boeing strike, state manufacturers appear optimistic.

The drop in the Boom Monitor from 47 in September to 44 in October (Chart 2.4) is also attributable to the Boeing strike. Four components of the index have been flat in recent months: employment (Chart 2.1), housing starts (Chart 2.8), real estate excise tax collections, and the help-wanted-unemployment rate ratio. One component, new car and truck sales (Chart 2.11), has risen in recent months after languishing earlier in the year.

The state's unemployment rate has risen 0.7 percent since January and currently stands at 6.4 percent. The U.S. unemployment rate remained unchanged in November at 5.6 percent, the 14th straight month it has lingered below 6 percent. Washington's unemployment rate has been 0.9 percent higher than the U.S.'s on average since 1980. It is currently 0.85 percent higher.

Employment growth trends over the past 10 months have been fairly constant in the state's regional economies: Clark County has consistently outperformed other regions, growing about 5 percent; the Tri-Cities has consistently under-performed the rest of the state, contracting about 5 percent; Seattle has slightly under-performed the rest of the state, growing about 2 percent. Bremerton has grown little. Pierce is growing slightly above average, and Spokane, Bellingham, and Yakima are slightly below. In recent months, how-

ever, Thurston County has gone off on a higher trend and is currently growing about 4.2 percent, slightly lower than Clark County's growth but still impressive. The main sources of strength in Thurston are hard to pinpoint, although new troops at Fort Lewis, a strong retail sector, and the state employee pay raise of 1995 are key contributors.

In-migration, as measured by out-of-state drivers newly registering for Washington state licenses, continues to fall. Over the past 12 months 123,400 out-of-state drivers registered in Washington, 2.8 percent fewer than 12 months ago. California's annualized rate has fallen from 34,454 to 31,193, a 9.5 percent decline, and Oregon's from 15,073 to 14.059, a 6.7 percent decline.

**National Economic Activity**

The latest economic releases are mixed. On the one hand, the U.S. index of leading indicators fell 0.5 percent in October, the largest drop in 6 months. On the other hand, the Fed's December 7 Beige Book reports that national economic activity continues to expand, although at a slower pace than two months earlier. The 12th District's Beige Book (which includes California, Oregon and Washington) points "continued solid growth and only limited signs of weakness entering late fall. Although Washington state manufacturing employment growth is hampered by a strike at Boeing, respondents report continued expansion among smaller manufacturing firms in that state. Agricultural production and sales also are high in other states, particularly Washington and Oregon."

**Overall Assessment**

The state of the economy as the year winds down is mixed. The economy has outperformed the rest of the country despite cutbacks at Boeing and Hanford. Employment growth in the second half of the year, however, was lower than in the first half, and the unemployment rate has slightly risen, indicating a weakening economy as the year winds down.

Chapter 3

# Washington State Revenue Forecast Summary

There was very little change to the revenue forecast in November. A combination of weaker than expected collections, small adjustments to the economic forecast and tax law changes resulted in a $15.3 million reduction to the General Fund-State forecast for the 1995-97 biennium. In addition, revised data for fiscal 1995 reduced the cash collections for the 1993-95 biennium by $0.7 million. The total change for the 1993-95 and the 1995-97 biennia is a $16.0 million reduction to General Fund-State cash receipts.

Collections during the last two months were a little weaker than assumed in the September forecast. General Fund-State cash receipts were $18.7 million less than expected during this period. The small collection shortfall is consistent with weaker than expected third quarter statewide employment and income growth. Nationally, third quarter was stronger than assumed in September, although recent data suggests that the national economy may also be softening. September employment growth nationally was weak with the manufacturing sector again losing jobs. Although consumer confidence rose in November, it declined in both September and October and remains below the August level. In addition, U.S. housing starts fell for the third straight month even though the 30 year mortgage rate continues to fall. Despite signs of cooling, the national economy is expected to continue to grow over the forecast horizon, although growth could slow for a quarter or two. With job reductions in the aircraft industry essentially over (the machinist strike notwithstanding), the state's economy is expected to be able to rideout any slowdown nationally. There are still some potential problems on the horizon: the machinist strike at Boeing, a slow start to the holiday buying season and uncertainty surrounding the balanced-budget negotiations at the national level. The state's economy is believed to be strong enough to overcome any of these potential disruptions. Moderate revenue growth is expected to continue throughout the biennium although it may experience slower growth a quarter or two along the way. More than half of the $15.3 million reduction to the 1995-97 forecast in November was due to tax law changes. Legislation lowered the General Fund-State forecast for the 1995-97 biennium by $9.5 million. $7.2 million of this reflects the state portion of the baseball stadium funding legislation enacted during the October 1995 special legislative session. The other $2.3 million legislative adjustment reflects

TABLE 3.1 CASH BASIS

**Revision to the General Fund-State Forecast**
November 1995
(Millions of Dollars)

| | 1993-95 Biennium | 1995-97 Biennium | Total |
|---|---|---|---|
| November 1995 Revenue Forecast Revision | | | |
| Legislation | — | ($9.5) | ($9.5) |
| Forecast Change [1] | (0.7) | (5.8) | (6.5) |
| Total Change | ($0.7) | ($15.3) | ($16.0) |

[1]November 1995 Forecast change, excluding legislation (cash basis).

legislation enacted during the June 1995 legislative session but not previously included in the forecast.

The revision to the revenue forecast in November along with revisions to the 1993-95 ending balance and some accounting changes reduces the estimated ending balance for June 30, 1997 to $677.2 million. This is $14.2 million less than assumed in September. The November forecast for the 1995-97 biennium totals $17,668.5 million and remains below the current estimate of the Initiative 601 spending limit of $17,899 million.

**Background and Assumptions**

The Washington State General Fund-State forecast is prepared quarterly in conjunction with the state economic forecast for the Economic and Revenue Forecast Council. The Economic and Revenue Forecast Council was created by Chapter 138, Laws of 1984, to provide an objective revenue forecast for both executive and legislative branches of state government. The Council consists of six members, two appointed by the Governor and two appointed by the Legislature from each caucus of the Senate and House of Representatives. Current members of the Economic and Revenue Forecast Council are listed inside the front cover of this publication. The General Fund-State revenue forecast is updated four times per year: March (February in even-numbered years), June, September, and November. Each state agency engaged in revenue collection is responsible for forecasting revenues it collects or administers. The staff of the Economic and Revenue Forecast Council is responsible for the preparation of the state economic forecast and the revenue forecast of the Department of Revenue's General Fund-State sources. The staff is also responsible for review and coordination of the revenue forecasts of agencies that collect relatively large amounts of General Fund-State revenue. These are the Department of Licensing, the Lottery Commission, the Insurance Commissioner's Office, the State Treasurer, the Liquor Control Board and the Office of Financial Management. The Office of Financial Management is responsible for summarizing the forecasts of all other state agencies which collect relatively smaller amounts of General Fund-State revenue as well as overseeing the tuition forecasts which are prepared by the various colleges and universities. For each quarterly update, the staff of the Economic and Revenue Forecast Council, under direction of the Executive Director, reviews (and if warranted, modifies) a national economic forecast prepared by Data Resources Incorporated (DRI). A state economic forecast is then prepared using an econometric model that links Washington's economy to the national economy. DRI's national forecast is the primary driver for the state economic forecast. After review by the Governor's Council of Economic Advisors, the economic forecast is used to prepare a baseline forecast of General Fund-State revenue. Agencies and the staff of the Forecast Council use the economic forecast, in conjunction with revenue models, to prepare a General Fund-State revenue forecast. The revenue forecasts for most major General Fund sources are prepared using econometric models which link the tax base of major General Fund taxes to the national and state economic forecast. A baseline revenue forecast, along with at least two alternative forecasts, is prepared for all General Fund-State sources and presented to the Forecast Council for approval. Once a forecast is approved by the Council it becomes the official forecast of General Fund-State revenue. An outline of the forecast process, including a summary of the baseline forecast for the 1995-97 biennium (cash basis) approved by the Forecast Council on November 16, 1995, is shown in Table 3.2.

**November 1995 Forecast Assumptions**

1. The November 1995 forecast is based on current law and administrative practices. The November forecast includes a $9.5 million reduction due to legislation affecting the 1995-97 biennium not previously included in the forecast. The majority of this

change ($7.2 million) reflects the General Fund-State impact of the baseball stadium legislation enacted during the October 1995 special legislative session. The remainder of the $9.5 million represents legislation enacted during the 1995 regular session but not included in the forecast in June. The June 1995 forecast update for the 1995-97 biennium included the vast majority of legislation and budget decisions (a $242 million reduction) enacted during the 1995 legislative session.

2. The baseline revenue forecast for the 1995-97 biennium is based upon the economic forecast presented in Chapter 1 of this publication. The outlook for the state's economy and revenue is in part based on DRI's October 1995 U.S. control forecast.

3. The November forecast of interest earnings assumes that the June 30, 1995 ending balances for the General Fund and the Budget Stabilization Account are applied to the July 1, 1995 beginning General Fund balance.

4. There are several legal challenges to various aspects of the state's tax laws or administration. Most of these actions are in litigation and are either unresolved or are on appeal. Any impact on General Fund-State receipts will not be incorporated into the General Fund-State forecast until the issue has been finally resolved.

5. There are some non-economic assumptions affecting General Fund-State revenues embedded in the forecast for the 1993-95 and 1995-97 biennia. Some of these are summarized below.

- Beginning July 1992, higher education tuition and fees are no longer part of the state General Fund. Instead, revenues from tuition and fees are placed in the operating fund of the individual colleges and universities. Because of this change, tuition and fees are included in only one year of the 1991-93 biennium General Fund-State revenue total and are excluded from the 1993-95 and 1995-97 biennial totals. The legislation enacting this change stipulates that the tuition and fee forecast is still to be reviewed by the Economic and Revenue Forecast Council. Pursuant to this, we have included the tuition forecast separately in Table 3.17.

- There have been several legislative and other non-economic changes which affected actual receipts for the 1991-93 and the 1993-95 biennia as well as the forecast for the 1995-97 biennium. Actual General Fund-State receipts for the 1991-93 biennium include $179 million due to legislation. The 1993-95 biennium total has been increased by a net $330 million as a result of action by the Legislature. The forecast for the 1995-97 biennium has been reduced $443 million due to legislation. This includes $242 million of reductions enacted during the 1995 regular and special legislative sessions and incorporated into the forecast in June and the $9.5 million reduction incorporated into the forecast in November.

Last quarter's forecast for the 1995-97 biennium included a special downward adjustment of $11 million reflecting the estimated impact of refunds and/or credits to be issued

TABLE 3.3

**Collection Variance**
September 11 - November 10, 1995
Based on September 1995 Forecast
(Millions of Dollars)

| Agency | Collection Variance | Percent of Estimate |
|---|---|---|
| Department of Revenue | | |
| Revenue Act* | ($18.1) | (1.6%) |
| Non Revenue Act** | 4.7 | 3.6 |
| Subtotal | ($13.4) | (1.1%) |
| Department of Licensing** | $1.4 | 2.2% |
| Lottery** | (6.7) | (31.6) |
| Total | ($18.7) | (1.4%) |

* Revenue Act taxes consist of retail sales, business and occupation, use, public utility, and tobacco products taxes as well as penalty and interest receipts. Variance based on collections September 11 - November 10, 1995.

** Variance based on collections from September and October 1995. Major Non Revenue Act taxes in this category include: state property tax levy, real estate excise tax and estate tax.

*** Variance for other agencies' General Fund revenue and transfers. Detail may not add to total due to rounding.

to taxpayers in early fiscal 1996 for prior overpayment of some excise taxes. The utilization of these credits was shifted from the third (which was assumed in the June forecast) to the fourth quarter. A large portion ( $8 million) of these credits were used to offset tax liability last month (third quarter) accounting for part of the collection shortfall. The remainder of these credits are still expected to be taken in the fourth quarter.

**Recent Collection Experience**

General Fund-State collections were close to expectations for the two months since the last forecast. Overall collections were $18.7 million (1.4 percent) less than expected in the September 11 through November 10 collection period. Revenue Act taxes (retail sales, business and occupation, use, public utility, and tobacco products taxes) account for the shortfall. Revenue Act collections during this period primarily reflect August and September business activity. These taxes were $18.1 million (1.6 percent) less than expected. However, $8 million of this shortfall is a timing issue, reflecting earlier utilization of tax credits than expected rather than weaker than expected activity. Adjusting for the earlier utilization of tax credits, the Revenue Act variance falls to $10.1 million and the overall shortfall drops to only $10.7 million (0.8 percent).

The November forecast assumed a 2.2 percent real GDP growth nationally in the third quarter, slightly above what was expected in the September forecast. However, at the state level, the November employment estimate for the third quarter was nearly 7,000 below the September forecast. Personal income in the third quarter was also slightly below expectations, contributing to the somewhat weaker than expected revenue. Revenue Act collections increased only 1.3 percent from the year-ago level in the two months since the last forecast. This increase understates the level of taxable activity due to a variety of 1994 and 1995 tax law changes (B&O surtax reductions, expansion of the sales tax deferral program, enactment of small business and hi-technology tax credits and passage of a sales tax exemption for machinery and equipment used by manufacturers) which have reduced tax payments in fiscal 1996. Adjusting for legislation and for large audit payments and credits, Revenue Act tax collections the last two months were 3.9 percent above the year-ago level. This is a clear deceleration from the strong 6.9 percent increase experienced in the second quarter. Slower growth was expected, however, and is consistent with the forecast of moderate economic growth.

Preliminary data for the last two months show strength in several sectors including transportation, communications and utilities, some services and some retail sectors. Weakness was evident in construction, manufacturing as well as in some services and retail trade sectors. Within the retail trade sector, furniture and equipment purchases (including computers) and building materials and hardware along with general merchandise and apparel stores had above average growth during the last two months. Miscellaneous retailers, auto dealers and gas stations were weaker than average. Within the service sector, auto services including repair, leasing and parking services were very strong while business services appeared weak. Other General Fund taxes collected by the Department of Revenue were $4.7 million, above the estimate for the two months since the September forecast. Stronger than expected estate tax payments and revenue from state forest funds account for the higher than expected collections. Most other major taxes in this category were below the forecast the last two months. The state share of the property tax was $1.8 million less than expected and real estate excise receipts were $908 thousand below the forecast.

Estate tax payments are very volatile and the higher than expected collections during the last two months primarily reflect settlement of a very large estate. State forest fund revenues, which are the state share of revenue from the sale of timber on state lands, are up more than 200 percent for the first four months of fiscal 1996. The shortfall of property tax receipts is likely due to shift in the timing of payment of property taxes and is expected to be offset by higher collections in the next few months. The weaker than expected real estate excise receipts reflect a continuation of a sluggish real estate market. Taxable real estate excise tax activity in September (reflecting October General Fund collections) was 1.8 percent below the year-ago level and has declined relative the year-ago period ten of the last twelve months. This is despite significantly lower mortgage rates compared to last year. This suggests that consumers are cautious despite significantly lower mortgage interest rates. Rates in the third quarter of 1995 are expected to average 7.7 percent compared to 8.6 percent a year ago. Although statewide real estate activity remains weak, there has been noticeable improvement in sev-

TABLE 3.4
**General Fund-State Collections** *
Cash Basis
(Millions of Dollars)

| Biennium | Current Dollars* | Percent Change | 1987 Dollars | Percent Change |
|---|---|---|---|---|
| 1961-63 | $817.1 | | $2,898.8 | |
| 1963-65 | 866.2 | 6.0 | 2,972.8 | 2.6% |
| 1965-67 | 1,128.6 | 30.3 | 3,694.3 | 24.3 |
| 1967-69 | 1,440.5 | 27.6 | 4,405.2 | 19.2 |
| 1969-71 | 1,732.7 | 20.3 | 4,856.9 | 10.3 |
| 1971-73 | 1,922.1 | 10.9 | 4,938.0 | 1.7 |
| 1973-75 | 2,372.4 | 23.4 | 5,270.5 | 6.7 |
| 1975-77 | 3,395.0 | 43.1 | 6,538.3 | 24.1 |
| 1977-79 | 4,490.0 | 32.3 | 7,541.5 | 15.3 |
| 1979-81 | 5,356.6 | 19.3 | 7,503.6 | -0.5 |
| 1981-83 | 6,801.5 | 27.0 | 8,278.1 | 10.3 |
| 1983-85 | 8,202.3 | 20.6 | 9,153.1 | 10.6 |
| 1985-87 | 9,574.6 | 16.7 | 9,947.6 | 8.7 |
| 1987-89 | 10,934.1 | 14.2 | 10,473.3 | 5.3 |
| 1989-91 | 13,308.9 | 21.7 | 11,593.1 | 10.7 |
| 1991-93 | 14,862.2 | 11.7 | 12,043.9 | 3.9 |
| 1993-95 | 16,564.6 | 11.5 | 12,806.0 | 6.3 |
| 1995-97[E] | 17,668.5 | 6.7 | 13,058.7 | 2.0 |

[E] - November 1995 Forecast; Beginning July 1992 tuition revenue is no longer part of the General Fund-State total.

* Total General Fund-State collections-cash receipts basis. Includes rate, base and administrative changes; Modified Cash Basis: 1985-87 & prior; pure cash basis: 1987-89 & after. Changes among biennia may not be comparable because the biennial revenue totals shown here include the impact of rate, base and administrative changes on total collections.

Source: Department of Revenue and the Office of Financial Management. Office of the Forecast Council's November 1995 forecast.

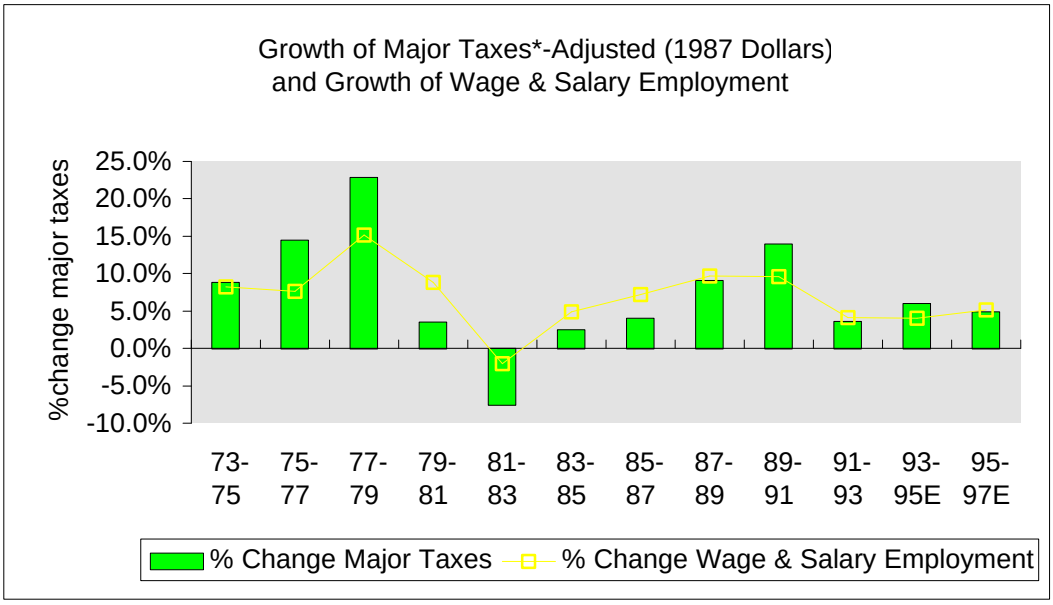
TABLE 3.5

**Growth of Major Taxes (Adjusted)***

November 1995 Forecast

| | Growth of Major State Taxes (adjusted) | |
|---|---|---|
| Biennium | Current Dollars | 1987 Dollars |
| 1971-73 | 16.3% | 6.6% |
| 1973-75 | 25.8% | 8.8% |
| 1975-77 | 32.0% | 14.4% |
| 1977-79 | 40.8% | 22.8% |
| 1979-81 | 24.1% | 3.5% |
| 1981-83 | 6.4% | -7.6% |
| 1983-85 | 11.8% | 2.5% |
| 1985-87 | 11.7% | 4.0% |
| 1987-89 | 18.3% | 9.1% |
| 1989-91 | 25.2% | 13.9% |
| 1991-93 | 11.4% | 3.6% |
| 1993-95E | 11.1% | 6.0% |
| 1995-97E | 9.8% | 4.9% |

*Estimated growth of six major state taxes (sales, B&O, use, public utility, real estate excise and property) on a tax liability basis, adjusted to a constant rate and base.



eral areas. Taxable real estate activity in King, Kitsap and Clark counties are all better than the statewide average. For the first nine months of 1995, statewide taxable real estate activity has declined 10.2 percent, while the decline has been only 3.9 percent in Kitsap county, 6.5 percent in Clark county and 8.9 percent in King. On the other hand, taxable real estate activity in the first nine months of 1995 is down 13.6 percent in Snohomish county and 15.5 percent in Spokane county.

The General Fund-State taxes collected by the Department of Licensing, primarily motor vehicle excise tax revenue, exceeded the September forecast by $1.4 million. During the last two months collections were 2.1 percent below the year-ago level. Lottery Commission's General Fund deposits were $6.7 million below the September forecast during the last two months. In this period, Lottery General Fund deposits were 45.4 percent below a strong year-ago level. Table 3.3 summarizes General Fund-State collection experience since the September forecast.

## The Forecast for 1995-97 Biennium

The November 1995 forecast is consistent with a moderate growth, low inflation path for the economy. The General Fund-State forecast for the 1995-97 biennium totals $17,668.5 million, $1.1 billion above actual collections for the just completed 1993-95 biennium. This is an increase of only 6.7 percent (2 percent adjusted for inflation). The weak growth is due largely to legislation which significantly lowers 1995-97 revenue. Legislative changes in 1994 and 1995 have reduced expected revenue in the 1995-97 biennium by a total of $443 million. Tax law changes enacted during the 1994 legislative session reduced General Fund-State revenue by $192 million. Tax reductions enacted during the 1995 session reduced General Fund-State revenue by an additional $252 million, including $7.2 million during the October 1995 special legislative session. Excluding the impact of 1994 and 1995 legislation, General Fund-State revenue is expected to grow 9.6 percent (6.3 percent adjusted for inflation) in the 1995-97 biennium. The current cash forecast of $17,668.5 million is below the Office of Financial Management's most recent estimate of the Initiative 601 spending limit of $17,899 million.

Revenue growth in the 1995-97 biennium is expected to only slightly outpace the growth experienced during the 1993-95 biennium. General Fund-State cash receipts for the 1993-95 biennium grew moderately despite major reductions in aircraft manufacturing employment, the state's largest manufacturing sector. The employment and income shocks to the state's economy, due to the contraction at Boeing, were to a large degree offset by growth in other manufacturing sectors as well as other areas, especially software. General Fund-State collections for the 1993-95 biennium increased $1.7 billion, 11.5 percent (6.3 percent adjusted for inflation) over the receipts collected during the 1991-93 biennium. There was a net addition of $330 million to the 1993-95 biennium due to legislation. Adjusting for new legislation, General Fund-State cash receipts increased 9.2 percent in the 1993-95 biennium (4.2 percent adjusted for inflation).

Revenue growth, legislation aside, is driven by underlying economic factors. Although the worst of the job losses at Boeing are likely behind us and the pace of growth in the national economy is expected to pick up in 1996, key sectors of the state's economy are assumed to remain weak during the 1995-97 biennium. Job growth in the manufacturing and construction sectors will stay weak relative to other sectors and to historical averages. This is despite several recent announcements of manufacturers coming to the state or sig-

TABLE 3.6
**Taxable Retail Sales***
November 1995 Forecast
(Millions of Dollars)

| Fiscal Year | Amount | Percent Change |
|---|---|---|
| 1971 | $8,748 | 1.6% |
| 1972 | 9,545 | 9.1 |
| 1973 | 10,646 | 11.5 |
| 1974 | 11,877 | 11.6 |
| 1975 | 13,380 | 12.7 |
| 1976 | 15,493 | 15.8 |
| 1977 | 17,626 | 13.8 |
| 1978 | 21,121 | 19.8 |
| 1979 | 22,309 | 5.6 |
| 1980 | 24,057 | 7.8 |
| 1981 | 25,197 | 4.7 |
| 1982 | 26,097 | 3.6 |
| 1983 | 29,368 | 12.5 |
| 1984 | 29,156 | -0.7 |
| 1985 | 30,687 | 5.3 |
| 1986 | 32,158 | 4.8 |
| 1987 | 34,647 | 7.7 |
| 1988 | 37,452 | 8.1 |
| 1989 | 41,429 | 10.6 |
| 1990 | 47,183 | 13.9 |
| 1991 | 49,812 | 5.6 |
| 1992 | 53,189 | 6.8 |
| 1993 | 55,319 | 4.0 |
| 1994 | 59,009 | 6.7 |
| 1995 | 61,927 | 4.9 |
| 1996 E | 63,649 | 2.8 |
| 1997 E | 66,689 | 4.8 |

E - Estimate

*- Actual base. Includes statutory and administrative changes to the tax base. Historical fiscal year data are from quarterly taxable sales reported by taxpayers on the state's Combined Excise Tax return. Historical data may be slightly different than previously reported due to use of seasonally adjusted data in the past. Major base changes include: exemption of off-premises food in 1978:3 (fiscal 1979); extension of the sales tax base to off-premises food 1982:2 to 1983:2; food again exempt 1983:3 (fiscal 1984). Base extended to some personal services, effective July 1993. Some personal services are exempt effective July 1994. Exemption of manufacturing equipment effective fiscal 1996.

nificantly increasing existing capacity, including Intel, SEH America Inc., BHP Steel, and Matsushita. Manufacturing employment growth in fiscal 1996 is expected to decline after increasing 0.6 percent in fiscal 1995, the first increase since fiscal 1990. Although manufacturing employment is projected to increase in fiscal 1997, it is expected to remain below its fiscal 1995s level. Construction employment is expected to grow in both fiscal 1996 and 1997 but the increase will be the weakest since fiscal 1993. Population growth is also expected to moderate during the 1995-97 biennium. Despite weak employment growth in the manufacturing and construction sectors, overall employment and income growth is expected to improve during the 1995-97 biennium. Although the rate of population increase is also expected to moderate during the 1995-97 biennium, it is still expected to outperform the U.S. as a whole.

Revenue growth is expected to grow moderately during the 1995-97 biennium based on a stable and improving state economy. Table 3.5 shows the biennial growth of the state's major tax sources at a constant rate and base. The graph in Table 3.5 illustrates the relationship between overall economic activity as measured by state wage and salary employment and revenue growth as measured by an index of major state taxes adjusting for major base and rate changes. Revenue growth slowed significantly after 1990 as the economy weakened. Growth during the 1991-93 biennium was well below the rapid growth of the late 1980's due to a weak national economy and sharp employment reductions in the state's aircraft industry. Revenue growth for the 1993-95 biennium improved. Growth in fiscal 1994 and 1995 was quite strong, especially relative to overall economic activity as measured by income and employment. However, growth was well below the rapid pace of the late 1980's due to much weaker employment gains. Revenue growth is expected to weaken in fiscal 1996 due to a slower national economy before improving in fiscal 1997.

Three taxes, sales and use, business and occupation and the property tax (state school levy), account for the majority of total General Fund-State revenue. These taxes are expected to account for 84 percent of the $17.7 billion total General Fund-State cash receipts in the 1995-97 biennium. The state's reliance on sales, business and occupation, and property taxes has increased over time, rising from 80 percent in the 1991-93 biennium and from 75 percent twenty years ago. The retail sales and use tax, the state's largest revenue source, is projected to generate $9.2 billion, 52 percent of total revenue in the 1995-97 biennium. The business and occupation tax and the property tax are expected to total $3.4 billion (19.3 percent of the total) and $2.2 billion (12.7 percent of the total) respectively.

The outlook for taxable sales growth is similar to what was assumed in September. Taxable sales increased 4.9 percent in fiscal 1995, slightly below September's 5.2 percent forecast. Growth was a little weaker than expected in the second quarter. Total taxable sales increased 4.8 percent, led by a 15.3 percent increase in the building materials and hardware sector and by 12.5 percent increases in the finance, insurance and real estate and the auto repair and parking sectors. Overall, the retail trade sector was up only 3.4 percent from a year ago in the second quarter. Aside from the strong showing of the building materials and hardware sector, eating and drinking places increased 5 percent and general merchandise and apparel increased 4.6 percent. Weakness was evident in food stores which grew only 2.3 percent and in the miscellaneous retailing sector which declined 6.2 percent in the second quarter. The second quarter year-over-year changes by sector are based on data adjusted for changes in the Standard Industrial Classification (SIC) of firms that occurred between the second quarter of 1995 and 1994. While there is always some reclassification of business, the Department of Revenue has recently embarked on a major effort to reclassify many large firms, significantly distorting the year-over-year comparison of growth of taxable activity by sector unless adjustment are made to the data. Fiscal 1995 taxable sales growth was strongest west of the Cascades, with western Washington counties up 5.1 percent while the increase in eastern Washington counties was only 3.8 percent. This is despite the fact that the top three counties: Pend Oreille (+23.1 percent), Whitman (15.8 percent) and Klickitat (+13.7 percent) are all in eastern Washington. King, the state's largest county, was up 6.7 percent in fiscal 1995. This is the first fiscal year since 1989 that King county grew faster than the statewide average. Taxable sales growth in Snohomish county, the state's second largest county, was only 2.2 percent. Taxable sales increased a weak 1.2 percent in Spokane county in fiscal 1995. Statewide taxable sales growth is expected to slow to 2.8 percent in fiscal 1996. The slower growth relative to fiscal 1995 is due in part due to economic factors

TABLE 3.7
**Summary Changes to the General Fund-State Forecast**
November Cash Forecast
(Millions of Dollars)

| | Change Between Sept. and Nov. 1995 Forecasts | |
|---|---|---|
| **1993-95 BIENNIUM** | | |
| Collection Experience | | $0.7 |
| Department of Revenue | — | |
| *Other* | 0.7 | |
| **1995-97 BIENNIUM** | | |
| Collection Experience | | ($18.7) |
| Department of Revenue | ($13.4) | |
| *Other Agencies* | (5.3) | |
| Legislation | | (9.5) |
| Forecast Change | | 12.9 |
| Department of Revenue | $6.9 | |
| Other Agencies | 6.0 | |
| Total Change: 1993-1995 & 1995-97 Biennia: | | ($14.6) |

and in part due to tax law changes. Slow growth nationally, an essentially flat aerospace sector and sizable employment reductions at Hanford will all contribute to sluggish retail sales growth in fiscal 1996. Early indications are that the 1995 Christmas shopping season is off to a slow start supporting a slower retail sales growth outlook. In addition, 1995 legislation exempted the purchase of machinery and equipment by manufacturers from the sales and use tax. This significantly reduces the sales and use tax base. This exemption is expected to shave the growth rate of taxable sales by about a percent in fiscal 1996. The growth of the sales tax base is expected to rebound to 4.8 percent in fiscal 1997, slightly higher than what was assumed in the September forecast.

**Forecast Change for 1995-97 Biennium**

The forecast for the 1995-97 biennium was reduced $15.3 million in November, a decrease of less than 0.1 percent. The change was primarily due to a combination of actual collection experience and incorporation of legislative changes not previously included in the baseline forecast. There was little change to the overall economic outlook since the September 1995 forecast. The Federal Reserve achieved a soft landing in 1995, and although the growth nationally may be a little bumpier the next quarter or two than assumed in September, the November forecast still expects the economy to grow moderately in fiscal 1996 and 1997. Likewise at the state level, the prognosis remains positive and essentially unchanged from September. The growth of tax collections slowed in the third quarter a little more than was expected, but at this point this is not a major concern.

The forecast for statewide employment and income growth has changed very little from September. The population forecast is a little less than assumed in September as is the building permit forecast. There is still a lot of uncertainty regarding the impact of a Federal balanced-budget agreement. Although an agreement has yet to be reached, the forecast assumes that any spending reduction contained in an agreement will be gradual enough to avoid a major shock to the economy. There is also some anxiety over the impact of the machinist strike that was not present at the time of the September 1995 forecast. The November forecast assumes a forty-five day strike. This number has been exceeded as of the time of this publication. The impacts of machinist strikes in the past have been small in the aggregate. Unless the current strike persists well into the first quarter, the impact this time around is also expected to be small statewide, although it may be substantial to individual businesses and individuals.

Table 3.7 summarizes changes to the cash forecast in November by type of change. Tables 3.8 and 3.9 summarize revisions to the 1993-95 biennium by agency. Tables 3.10 and 3.11 summarize changes to the forecast for the 1995-97 biennium by agency. Tables 3.8 and 3.10 are on a cash basis and Tables 3.9 and 3.11 are on a GAAP basis. Table 3.12 provides fiscal year estimates by major revenue source (cash basis). Below is a brief summary of the changes to the General Fund-State forecast by agency.

*Department of Revenue*

The Department of Revenue's cash forecast for the 1995-97 biennium was reduced $13.7 million in November. Much of this change, $13.4 million, reflects actual collection experience for the first two months since the September forecast. The other major change was a $7.2 million reduction as a result of legislation enacted to help fund the new baseball stadium for the Seattle Mariners. The retail sales tax forecast for the 1995-97 biennium was reduced $15.7 million in November and the

1995-97 forecast for the business and occupation tax was lowered $3.9 million. $5.8 million of the sales tax reduction reflects the legislation funding the baseball stadium. Other major reductions to Department of Revenue sources for the 1995-97 biennium in November included: a $3.4 million reduction to the use tax, $1.4 million of which is related to the baseball stadium legislation and a $3.9 million reduction to the cigarette tax. There were some increases to the forecast in November. The public utility tax forecast was raised $2.9 million. There was also a $4.1 million increase to the real estate excise tax estimate, a $5.9 million increase to the estate tax forecast and a $3.6 million increase to the state forest fund estimate. Most of the changes, up or down, legislation aside, reflect collection experience so far during fiscal 1996. Sales, business and occupation, use and cigarette tax collections are not performing as well as expected. On the other hand, public utility, estate and state forecast fund collections are higher than expected through the first four months of the biennium.

*Department of Licensing*

The General Fund-State forecast for taxes collected by the Department of Licensing was increased $3.9 million for the 1995-97 biennium. The revision reflects actual experience in the first four months of the biennium and revised economic assumptions for interest rates, state personal income and population.

*Office of Financial Management: Other Agencies*

The 1995-97 General Fund forecast for "other agencies" prepared by the Office of Financial Management was reduced $12.2 million in November. There were a series of changes to the forecast of treasurer's transfers which reduced General Fund-State revenue by $8.8 million, including a $2.3 million reduction due to a legislative change. The primary reductions to the General Fund forecast resulting from increases in treasurer's transfers include a $2.9 million change to the forecast of transit distributions, a $0.9 million change to the water quality transfer forecast, a $2.4 million change to the forecast of county sales and use equalization payments and a $2.3 million transfer to the DSHS Child Support Account. The last change was a legislative adjustment not previously incorporated into the forecast in June or September. Another change to the forecast of other agencies for the 1995-97 biennium was a $1.4 million reduction to the General Fund due to an increase in state revenues for distribution (primarily PUD excise tax). Like treasurer's transfers, higher state revenues for distribution reduce General Fund-State revenue.

*State Treasurer*

The interest earnings forecast was increased by $8.2 million for the 1995-97 biennium. The increase is due to changes in the interest rate and average daily balance assumptions. The average daily balance assumption was increased $45 million for fiscal 1996 and $165 million for fiscal 1997. The interest rate assumption was slightly higher than in September, adding to the increase to the forecast due to the higher balance assumption. Note, the forecast for interest earnings for the 1995-97 biennium assumes that the June 30, 1995 ending balance for the General Fund and Budget Stabilization Accounts are applied to the July 1, 1995 General Fund beginning balance.

**Track Record for the 1993-95 Biennium**

General Fund-State receipts for the 1993-95 biennium totaled $16,564.6 million as of November 1995. This is $0.7 million higher than the September 1995 preliminary number and is $312 million lower than the original estimate for the 1993-95 biennium adopted in

February 1992 (excluding legislation). There have been fourteen quarterly updates to the forecast for the 1993-95 biennium since the original forecast in February 1992 (excluding the data revision in November 1995). There have been nine increases to the estimate and five reductions. The largest change was in March 1993 when the forecast was reduced $577 million to incorporate the impact of major production and employment reductions in the state's aircraft industry. Since March 1993, the 1993-95 General Fund-State forecast has increased $411 million, excluding legislation. Table 3.13 summarizes the changes to the General Fund-State forecast for the 1993-95 biennium.

**Track Record for the 1995-97 Biennium**

The November 1995 forecast for the General Fund-State for the 1995-97 biennium totals $17,668.5 million. This is $15.3 million less than the September 1995 forecast and $280 million, 1.6 percent, higher than the initial forecast for the 1995-97 biennium (excluding legislation) made in February 1994. There have been seven quarterly updates to the forecast for the 1995-97 biennium. There have been four reductions (including the current forecast) and three increases. Table 3.14 summarizes the changes to the 1995-97 General Fund-State forecast.

**The Relationship Between the Cash and GAAP General Fund-State Revenue Forecasts**

Legislation enacted in 1987 requires that the state's biennial budget be in conformance with Generally Accepted Accounting Principles (GAAP). This legislation requires that the Forecast Council adopt a cash forecast as well as a forecast of revenue on a GAAP basis. The forecast on a GAAP basis provides an estimate of the state's equity position. Revenues are credited to the biennium in which they are earned even though they may not yet have been collected. On the other hand, the cash forecast is used for cash flow management, to assess the state's current surplus or deficit position, and is the basis for triggering the allotment reduction provision of the state's Budget and Accounting Act. Washington's Budget and Accounting Act requires that allotment reductions be made when expected cash receipts are less than expected disbursements. The primary difference between the cash and GAAP forecasts is timing of the receipt of revenue. References to the General Fund-State forecast in the text of this chapter refer to the cash forecast unless otherwise noted. Likewise, the tables other than Table 3.9 and Table 3.11 are on a cash basis. Table 3.15 compares the cash receipts forecast and the GAAP forecast by agency. Actual revenue for the 1993-95 biennium (revised from preliminary September 1995 data) on a GAAP basis totals $16,637.7 million, $73.1 million higher than the cash total of $16,564.6 million. The November forecast for the 1995-97 biennium on a GAAP basis is $17,717.1 million, $48.6 million more than the cash estimate of $17,668.5 million.

Table 3.16 shows the ending balance (unaudited) for the 1993-95 biennium and the estimated ending balance for the 1995-97 biennium based on the revised November revenue forecast (GAAP basis) and the current appropriation level adopted by the legislature in June. The General Fund ending balance for the 1993-95 biennium is $558.9 million. This includes $100 million in the Budget Stabilization Account. The Budget Stabilization Account sunsetted on June 30, 1995 in accordance with Initiative 601 and the $100 million in that account became part of the General Fund's beginning balance for the 1995-97 biennium. The current estimated ending balance for the 1995-97 biennium is $677.2 million. The General Fund balance estimates in Table 3.16 are based on a new for-

mat adopted by the Office of Financial Management in September. The balances shown in Table 3.16 are on a modified GAAP basis. These balance figures are not comparable with the prior fund balance estimates published here and used by OFM and Legislative Fiscal Committees prior to September 1995. Prior to September, the balances were on a cash basis. On the old basis, the ending balance for the 1993-95 biennium would have been $661.4 million and the projected ending balance for the 1995-97 biennium based on the November 1995 forecast and appropriation assumptions would be $731 million.

**Tuition Forecast**

Legislation enacted during the 1992 legislative session (ESB 6285) provided that higher education tuition and operating fees collected by the state's colleges and universities would no longer be deposited into the State General Fund. Instead, tuition and fee revenue are to be deposited into the operating fund of each institution of higher education. This change became effective July 1992. As a result of this legislation, tuition revenues are no longer included in the State General Fund total after June 30, 1992. The legislation enacting this transfer requires that the Forecast Council staff continue to review the tuition forecast and that the tuition forecast must be approved by the Forecast Council as part of the quarterly forecast review process. Table 3.17 shows the November 1995 tuition revenue for fiscal 1993 and beyond. The tuition numbers for fiscal 1992 and earlier years are included in the General Fund-State totals shown in other tables in this chapter. Data through fiscal 1995 reflect actual collections. Revised actual receipts for fiscal 1995 were $104 thousand more than what was expected in September. The November tuition and fee forecast for the 1995-97 biennium was increased $1.3 million from September. The current forecast is based on enrollment and tuition assumptions adopted by the legislature during the 1995 session. Tuition rates are assumed to increase 4 percent in each year of the biennium. The revision to the forecast in November reflects incorporation of better data on actual enrollment levels for the current school year.

**Alternative Forecasts**

The baseline forecast assumes that the national and state economies are on a moderate growth, low inflation path. The danger of either a recession or excessively rapid growth is low for the 1995-97 biennium, although there is always a risk. Two alternative forecasts of General Fund-State revenue, with distinctly different growth paths, were adopted along with the baseline forecast by the Forecast Council in November. In the optimistic scenario, slower growth in the second and the third quarter turns out to be only a temporary pause in the economy. Growth begins to accelerate in the fourth quarter of 1995. The economy is much stronger in 1996 than assumed in the baseline. Consumers continue to spend as the currently high consumer debt level fails to erode confidence or constrain behavior. Inflation remains in check and investment spending accelerates. In the optimistic scenario, by the middle of calendar 1996 state personal income is 2.5 percent higher than the baseline estimate and wage and salary employment is more than 25,000 above the baseline. By the end of the 1995-97 biennium state employment is 2.7 percent above the baseline forecast and state income is 4.7 percent higher.

The pessimistic alternative assumes a hard landing. In this scenario, growth turns negative in the fourth quarter of 1995 and declines through the second quarter of 1996. Washington's economy suffers in response to the weakening national economy. Aerospace growth is weaker and additional Federal

budget cuts reduce Hanford related jobs more than assumed in the baseline. In the pessimistic alternative, state personal income is 3.8 percent below the baseline by the middle of 1996 and 5.8 percent less than the baseline by the end of the 1995-97 biennium. Employment is more than 25,000 less than the baseline by mid 1996 and is 3.3 percent below by the end of the biennium. Table 3.18 shows the revenue implications of these alternative scenarios for the 1995-97 biennium. The optimistic scenario generates $18,397.1 million in General Fund-State revenue in 1995-97. This is $728.7 million more than the baseline forecast. The pessimistic alternative produces only $16,804.5 million in the 1995-97 biennium, $864 million less than the baseline forecast. The range of alternative revenue forecasts is less than the range in September reflecting a shorter time horizon. In addition to the official optimistic and pessimistic alternatives, an additional alternative forecast was developed in November. This was developed by averaging the estimates for key economic variables made by members of the Governor's Council of Economic Advisors. This alternative was very similar to the November baseline forecast. The Governor's Economic Council's alternative would produce about $8 million more than the baseline for the 1995-97 biennium.

Chapter 4

# Forecasting County Taxable Retail Sales

## Introduction

This special report discusses a simple, inexpensive, yet effective way of forecasting county or city retail sales. The method, a type of ARIMA forecasting, involves regressing a variable against its eight lagged values. The procedure will be discussed using taxable retail sales in Clark, King, Whatcom, and Spokane Counties as examples.

The report's outline is as follows. Part 1 provides background on ARIMA forecasting. Part 2 discusses when ARIMA forecasting is appropriate. Part 3 traces through the four steps of an ARIMA forecast. Part 4 outlines the simpler approach. Part 5 concludes.

The report will not go into much detail on how ARIMA forecasts are made—there are textbooks that do this, and references are provided at the end. It will simply outline the procedures. An interested reader can consult references given in the back. A less ambitious reader can follow the procedures suggested here.

## Part 1. What is ARIMA Forecasting

Autoregressive-integrated-moving-average (ARIMA) forecasting, also known as Box-Jenkins forecasting, is a sophisticated method of extrapolating data. An analyst doing an ARIMA forecast is not interested in explaining why a variable moves as it does. His objective is to build a model that will generate data resembling the series he will forecast. The only inputs into the model are the variable's history. Although other information is ignored, an analyst may subjectively account for them at some point in the forecast.

ARIMA forecasting is well known to economists with a quantitative background, but is one most analysts are unfamiliar with. This is unfortunate. The ARIMA methodology, in most instances, delivers a better short-term forecast than one arrived at using sophisticated econometric models. Although it requires study and experience to apply correctly, following shortcuts—such as the one outlined here, one can usually generate satisfactory forecasts having only a rudimentary knowledge.

George Box and Gwilym Jenkins in the early 1970's developed the methodology—Box-Jenkins forecasting— used by most ARIMA practitioners. During the 1970's research on ARIMA and econometrics proceeded independently—with the econometricians assuming a loftier plateau in the intellectual hierarchy. Econometricians were taken aback during the 1970's when several studies showed that simple one-equation ARIMA models generated better forecasts than sophisticated multi-equation econometric models. Econometricians responded to this by incorporating into econometrics the research developed in the time series literature. Advances made the past 10 years have fundamentally changed the way economists do empirical work, especially in macroeconomics and finance. Although many analysts continue to look down on ARIMA modeling, their condescension is mainly a matter of ignorance. ARIMA has proven itself time and again.

## Part 2. Why ARIMA Forecasting

Econometric modeling is hard to do, and few do it correctly. An analyst not current in such arcane topics as cointegration, unit root tests, spurious regressions, random walks, asymptotic distribution theory, specification analysis, autoregressive con-

ditional heteroskedasticity (ARCH), and non-linear regression is bound to go astray and come up with sub-optimal forecasts. The sheer difficulty of doing econometric modeling is reason enough to settle on a simpler approach. But it is not the only reason.

ARIMA models in many cases provide better short-term forecasts than sophisticated multi-equation econometric forecasts. ARIMA models are designed to capture a variable's dynamics. Econometric models are designed to measure causality. Since most variables are highly persistent (i.e. dynamic)—their future course is driven by the recent past, it's not surprising that ARIMA frequently outperform regressions models. One could, of course, make an econometric model dynamic by adding lagged values of the dependent variable (in fact, it is becoming standard to do so). Nonetheless, it is difficult to incorporate the rich dynamic structure that characterizes a typical ARIMA model into an econometric model.

Simplicity and forecast accuracy are the main reasons for using ARIMA. Others include:

(a) when one knows little about the variable one is forecasting.

(b) For benchmark forecasting. (If an econometric model cannot out-forecast the benchmark, it is mis-specified and needs to be revised.)

(c) To forecast exogeneous variables used in econometric models.

(d) When one wishes to compute confidence intervals. (ARIMA confidence intervals are easier to compute and generally are smaller than an econometric forecast interval.)

(e) When one does not have the data required to build an econometric model.

(f) When the forecast combines methodologies. Often, a forecast that combines methodologies—say econometric and ARIMA models, is better than either one alone.

An analyst should consider four factors before going with an ARIMA forecast. First, ARIMA forecasting requires a lot of data. For quarterly data, one should have at a minimum 10 years of data. If one does not have enough observations, another forecasting methodology should be considered. Second, the guiding principle is parsimony—to come up with a model with few parameters. Third, the model should only be used for short-term forecasting—certainly not more than eight quarters ahead if one is using quarterly data, and preferably not more than four quarters ahead. Since ARIMA models simply extrapolate the past, a long-term forecast is likely to be unreliable, especially if there is a turning point. Finally, one should feel free to subjectively revise the forecast estimate in light of new information. In fact, "add factors" are essential if one wishes to arrive at a good forecast.

**Part 3.A How to do an ARIMA Forecast: Identification**

An ARIMA forecast is a four step process. First, the model is identified (identification). Second, the model is estimated (estimation). Third, the model is checked for flaws (diagnostic checking). Fourth, a forecast is made (forecasting). Each of these steps raises different complications. For simplicity, each step will be explained using taxable retail sales in King, Spokane, Clark, and Whatcom Counties as examples. These counties were selected because different fundamentals drive economic activity in each county.

Before any analysis, the data are converted to real value by deflating by the implicit price deflator. Although one could estimate the model in nominal terms, relationships are better captured when economic behavior is estimated in real terms. The model, therefore, forecasts real taxable sales. Forecast values are later converted to nominal

numbers using the Forecast Council's quarterly forecast of the implicit price deflator.

Step 1 in any empirical work is to chart the data. Eyeballing its key features—its trends, seasonal and cyclical components, variability, irregularities, and turning points, is the most important step in empirical work, one many skim over. Charts 4.1- 4.4 show real taxable retail sales for King, Pierce, Snohomish and Spokane Counties for the first quarter of 1971 through the second quarter of 1995 (in 1987 dollars). The thin line is the actual series. The bold line is the seasonally adjusted series.

These series have three features one often comes across with economic time series. First, they are growing over time. Second, their seasonal factors are pronounced. Third, they become choppier over time. Before developing a model, the data must be filtered to remove all three features. After the model is estimated, the forecast is refiltered to add these features back in.

Since the variance is growing over time, later observations are given more weight in estimating a model. This is undesirable. To mitigate this, the data are usually run in logs. Alternatively, one could filter the data by taking square roots. The upward trend also gives later observations more weight. Differencing the series usually corrects this shortcoming. If, after differencing, the series still has a trend (in technical terms, if the data are not stationary), the data should be differenced again. Almost always, differencing once is sufficient. The series cycle means fourth quarter sales are given more weight than sales in other quarters (sales are higher in the fourth quarter mainly because of Christmas). To adjust for this, the data are usually seasonally differenced.

Let R represent retail sales (logged-differenced-and-seasonally differenced) in period t. The object of ARIMA is to forecast sales by estimating the following model:

$$R_t = A_0 + A_1R_{t-1} + A_2R_{t-2}...A_pR_{t-p} + e_t + B_2e_{t-1} + B_2, e_{t-2} + ...B_qe_{t-q} + D$$

Where the A's and B's are parameters to be estimated, e is the error term, and D is an intervention variable. The intervention variable—a dummy variable—was added to account for the fact that food sales were taxable before 1978 and during 1982.

The object of ARIMA forecasting is to select a p and q that result in white noise residuals. If the residuals are not white noise, there is something systematic in the data not being accounted for. Ideally, p and q should be small. Experience shows that letting p and q equal one is often enough to deliver white noise residuals. Experience also shows that adding more parameters—adding more lags—to a white noise process will not improve forecast performance, even if the more elaborate model has better statistical properties.

ARIMA modeling is two parts method and one part art. There is no one rule one can use to select the right model—and not all practitioners will arrive at the same model.

**Part 3.B Estimation**

At one time, estimating an ARIMA model was a difficult step. Now, with packaged software, it is relatively simple. The issue now is what software package to use. If the model only contains autoregressive components, then one simply needs software that will do multiple regression analysis. Most spreadsheet programs have this capability. If the model contains a moving average component, estimating the model will require specialized software. Three popular packages used by economists are RATS, TSP and SAS. All are available for Macintoshes and for DOS and Windows based systems. RATS and TSP sell for under $500, and SAS for under $1,000. Student versions of RATS and TSP are available for about $100. This researcher has found RATS to

be the superior package for time series analysis. Its superiority, however, is not overwhelming. If one already feels comfortable with a package, he should stick with it.

**Part 3.C Diagnostic Checking**

Diagnostic checking mainly involves studying whether the residuals are random (white noise). If the residuals have been generated by white noise, the forecast cannot be improved upon. The sources at the end provide a battery of simple tests used to evaluate an ARIMA model.

**Part 3.D Forecasting**

Charts 4.5. and 4.6, forecasts for Washington state and Whatcom County, are an example of ARIMA at its best and at its worst. The solid bold lines are seven-year forecasts for 1990 through 1997, based on data for 1971-1989. The bold dashed line is a series of one-year forecasts made for 1990 through 1995. The bold gray line is the latest forecast through 1997. The thin line is the actual series.

The ARIMA model for Washington was differenced and seasonally differenced once, and included a seasonal moving average and autoregressive term, and a one lag autoregressive and moving average term. The ARIMA model for Whatcom was also difference and seasonally differenced once, and included a one lag moving average and autoregressive term.

The forecasts for Washington—even the seven-year one, are good. On average, the one-year forecast is off 1.08 percentage points from the actual values. Note that the forecast methodology forecasts seasonal variation. The forecasts for Whatcom are not nearly as good. The seven-year forecasts veer further and further away from the actual line over time—to the point of absurdity. Even the one-year forecasts are troublesome. On average, the forecast is off by 2.67 percent. In 1992, however, the forecast was off by over 5 percent.

The Whatcom County chart illustrates the greatest danger of working with an ARIMA model: missing a turning point. ARIMA models extrapolate the past—the trend, seasonal components, and correlation with the past—especially the recent past. If there is a turning point, ARIMA will not pick it up. The result will be a bad forecast, one that gets progressively worse as the forecast horizon goes on.

This drawback of ARIMA is not as damaging as some critics claim. Turning points are difficult to forecast. In fact, in most econometric models turning points are exogeneously placed there by the forecaster based on his subjective judgment. If the turning point does not materialize, the result is a biased forecast. Furthermore, most long-term forecasts do not include turning points since forecasting more than two years in advance is too difficult.

The Whatcom forecast illustrates two lessons ARIMA practitioners should follow. First, one should be wary of forecasting long term with ARIMA. Second, a researcher should be scrupulously methodical in coming up with the best model. But after he settles on a model, he should never take it too seriously and should feel free to subjectively adjust the forecast in light of better information and common sense.

The forecast for the other counties are summarized in Table 1. All varialbles forecast were differenced, seasonally differenced, and logged. The King County model also included a seasonal moving average and autoregressive component, and a one-period moving average and autoregressive component (the same specification as that of Washington State model). The Whatcom County model included a one-period autoregressive and moving average component. The Clark County included a one period moving average compo-

nent. And the Spokane model included a one-period autoregressive component.

**Part 4.A A Shortcut**

ARIMA forecasting requires intuition, expertise, experience, good software and a powerful computer. Most analysts lack at least one of these. Fortunately, there is a shortcut that will, in most cases, deliver good forecasts. All that is required is software capable of doing simple regression analysis. Most spreadsheets, including Lotus, Excel, and Quattro Pro come equipped with this.

The procedure involves taking the raw series and:

(1) take its natural log

(2) seasonally difference it once

(3) difference it once

(4) Regress the result against its eight lags

(5) Base the forecast on this model.

The resulting forecast for the four counties is given in Table 4.2. Note that the results for Spokane and Whatcom Counties are better than one would get with a more parsimonious ARIMA model. The results for Washington State and King County are not nearly as good as the ARIMA forecast, but the margin of errors is not large.

The reason this strategy delivers "satisfactory" forecasts is because of a technical theorem called Wold's decomposition. Wold's decomposition implies that most economic time series (after filtering) can be well approximated with an autoregressive model with several lags.

**Part 4.B How Good Are these Forecasts?**

The 8-lagged forecasts presented here were about 2 percentage points of the realized values on average, although in some years the estimates were up to 10 percent off the mark. Are these margins of error acceptable? There is no way to answer this question without having an alternative forecast with which to compare it with. Three points, however, are worth considering. First, the acceptable margin of error depends on the penalties one will pay if wrong. If the costs of a wrong forecast are high, one will want to invest time and resources in making a more sophisticated forecast. It would also be prudent, however, to augment a more sophisticated procedure with a simple rule of thumb procedure outlined here. Second, retail sales are a volatile series—and a more sophisticated methodology may deliver better forecasts—but the forecasts will not be all that better. Third, the 8-lagged forecasts should be seen as a starting point. One could start with an 8-lagged equation (some suggest 12 lags—see Granger and Newbold), and then start trimming it down by, say, dropping variables with the most insignificant coefficients. After arriving at a final equation, the next step would be to subjectively adjust it in light of other information. Generally one will want to adjust the forecast to make it more conservative, since the costs of forecasting too high are usually higher the costs of forecasting too low.

**Part 5.B Conclusion**

This article is intended to encourage novices to learn more about ARIMA forecasting. It also is meant to provide a shortcut to those who lack the time, budget, or expertise to do a sophisticated forecast of county retail economic activity. The methodologies discussed can be applied to several data sets published by the Department of Revenue (DOR), including any of 42 components of retail sales for any county and most large cities in Washington. It can also be used to forecast Business and Occupation activity (i.e. total sales) for over 250 industrial categories published by the DOR.

There are dozens of excellent text books on Time Series forecasting. In order of preference, this

author has found the following three to be the best.

Suggested Readings:

(1) Econometric Models and Economic Forecasts, Robert S. Pindyck & Daniel L. Rubenfeld, McGraw Hill 1991.

(2) Granger, C.W.J. and Paul Newbold, Forecasting Economic Time Series Academic Press Inc.

For the truly ambitious:

(3) Time Series Analysis, James D. Hamilton, Princeton University Press.

# Washington and U.S. Per Capita Personal Income Growth

This paper is the latest in a series which examines trends in Washington and U.S. per capita personal income. As in the earlier papers, the purpose of this study is to analyze the causes of divergent trends in per capita income growth between Washington State and the United States by decomposing per capita income into its constituent parts. Regional differences in per capita income can be attributed to differences in per capita earnings income and differences in per capita non-earnings income. Differences in per capita earnings income can be further broken down into differences in average earnings (earnings/employment) and differences in the job ratio (employment/population.) Finally, differences in average earnings can be attributed to differences in industry mix and differences in average earnings within industries (differential regional earnings.) For a detailed discussion of the methodology, please refer to "Divergent Trends in Per Capita Personal Income" published in the November 1990 Economic and Revenue Forecast.

Chart 5.1 shows that Washington's per capita income has generally been above the national average. Washington's per capita income was close to U.S. per capita income in the early seventies in the wake of massive layoffs in the aerospace industry. Later in that decade, though, Washington's per capita income relative to the U.S. fully recovered. As Chart 5.2 illustrates, Washington's per capita income growth exceeded U.S. growth in every year of the seventies except 1970 and 1977. By 1979, Washington's per capita income was 8.5 percent higher than U.S. per capita income. Washington per capita income growth was lower than the national average during most of the eighties, however. By 1988, Washington's per capita income was only 0.4 percent higher than U.S. per capita income. Washington's economy was much stronger than the national economy from 1989 through 1992, creating yet another reversal in relative per capita income growth. Despite some slippage in the last two years, Washington per capita income was 3.9 percent higher than the national average in 1994.

**Industry Mix**

Chart 5.3 compares overall average earnings per job in Washington to U.S. average earnings. Until the eighties, average earnings in Washington exceeded U.S. average earnings. During that decade, however, Washington earnings declined sharply relative to U.S. earnings, falling below the national average. Washington's average earnings relative to the U.S. have since recovered some of the lost ground. Since 1991, there has been almost no difference between Washington and U.S. average earnings.

As mentioned above, differences in average earnings can result from differences in the mix of industries or from differences in average earnings within particular industries. In order to quantify the effect of industry mix on average earnings, a hypothetical earnings series has been calculated for Washington. Washington hypothetical earnings are those which would have occurred if all Washington employment in each industry had been compensated at the national rate of average earnings. Average earnings were calculated at as disaggregated a level as possible, generally at the two-digit SIC level. Since both the U.S. actual average earnings and Washington hypothetical average earnings are calculated using the same (U.S.) average earnings by industry, the differences between the two are due only to differences in industry mix between the two regions.

Chart 5.4 illustrates the effect of differences in the mix of industries in Washington from the national

mix. While the gap has varied, Washington hypothetical average earnings have been consistently lower than U.S. average earnings, implying that industry mix is unfavorable to Washington relative to the nation. In other words, if Washington average earnings in each industry were identical to U.S. average earnings, Washington's overall average earnings would be lower than national average earnings by virtue of the fact that Washington has a smaller share of employment in the relatively higher paying sectors of the economy. The gap was narrowest at the height of the Boeing boom in 1989 and 1990 but has widened again with the cutbacks at Boeing. In 1994, the highest paid industries in the U.S. were mining; transportation and utilities; manufacturing; and wholesale trade. Average earnings in each of these exceeded overall average earnings by at least 30 percent. Washington had a smaller share of employment in each of these industries, except wholesale trade, than did the nation. The industries that paid at least 30 percent less than the overall average were agricultural services, retail trade, and farming. Washington's share of employment in each of these exceeded the national average in 1994. In 1994, the unfavorable industry mix in Washington resulted in average earnings that are 1.7 percent lower than they would have been with the U.S. industry mix, reducing per capita income by 1.2 percent.

**Differential Regional Earnings**

Differential regional earnings refers to the impact of differences in average earnings per job between regions excluding differences in industry mix. This component is measured by comparing Washington hypothetical average earnings with Washington actual average earnings. Both these series are calculated with Washington employment patterns so industry mix is not a factor. Washington hypothetical average earnings is calculated with U.S. average earnings by industry while the Washington actual average earnings is calculated with Washington average earnings by industry.

Chart 5.5 illustrates average earnings trends in Washington State and the United States. Washington's average earnings, excluding mix effects, have historically been much higher than the U.S. average. At the peak in 1980, Washington's overall average earnings were 8.4 percent higher than they would have been with U.S. average earnings on an industry by industry basis. Washington's average earnings declined relative to U.S. average earnings for the next eight years, however. By 1988, Washington actual average earnings were 2.8 percent lower than hypothetical average earnings. Washington average earnings have recovered some of the lost ground since 1988, however. Most of the improvement in relative wages occurred between 1988 and 1991, a period during which the Washington economy outperformed the U.S. economy by a wide margin. In 1994, Washington average earnings were 1.4 percent above the comparable national rate, adding 1.0 percent to Washington's per capita income relative to national per capita income.

The measure of prices used in this report and elsewhere in this publication to convert current dollars to constant dollars is the U.S. implicit price deflator for personal consumption expenditures. To a large extent, however, differences in regional wage growth reflects differences in regional inflation. In Chart 5.6, Washington average earnings were deflated with the Seattle area consumer price index (CPI) while the hypothetical series, representing national wages, was adjusted with the U.S. CPI. Both the Seattle and U.S. CPI's measure price levels compared to the base period of 1982-84. No inference about the relative levels of real earnings can be drawn from this chart, however, since we do not know the relative cost of living in the base period. Nevertheless, Chart 5.6 clearly shows that Washington's real earnings declined sharply relative to U.S. real earnings in the early eighties and have remained lower through good times and bad. It could be that this sea change was the inevitable result of real wage differentials being eliminated through migration. This theory does not explain why this

differential persisted for decades prior to the eighties only to be suddenly eliminated in a few years, however. A more plausible explanation relates to "quality of life" concerns such as pollution, congestion, and crime, which affect the standard of living but are not reflected in price indices such as the CPI. If the perceived quality of life in Washington rose relative to the quality of life elsewhere, then migration should result in a decline in the relative real wage rate.

**Job Ratio**

The job ratio is simply the ratio of the number jobs in the region to the population. Regional differences in the job ratio are as important as differences in average earnings in terms of their contributions to relative per capita income. Differences in the job ratio can result from differences in the unemployment rate, differences in labor force participation, and differences in multiple job holding. As Chart 5.7 illustrates, there is an upward trend in the job ratio for both Washington and the United States due to increasing rates of labor force participation.

Prior to the late eighties, Washington's job ratio was very similar to the nation's. The only notable exception was in the early seventies when the Boeing bust led to a dearth of jobs in Washington on a per capita basis. The Washington and national job ratios began to diverge in the late eighties, though. As the U.S. economy slowed, Washington's economy actually accelerated and when the national recession began, Washington's economy continued to grow. Washington's job ratio peaked in 1990, the same year as the peak in the U.S. job ratio. While the number of jobs continued to grow, the population rose even faster. Washington's job ratio was 3.6 percent higher than the U.S. job ratio in 1994, adding 2.6 percent to Washington's per capita income relative to the nation.

The job ratio is driven mainly by the unemployment rate. As Chart 5.8 shows, Washington's unemployment rate is normally one to two percentage points higher than the U.S. unemployment rate. The much higher Washington unemployment rate in the early seventies corresponds to the low job ratio in the same period. Washington's unemployment rate dropped below the U.S. rate in 1990 and 1991. At the same time, Washington's job ratio rose well above the national average. While the unemployment rate in Washington is now slightly higher than the U.S. rate, the gap is smaller than normal, indicating that the Washington labor market is still relatively tight.

**Per Capita Non-Earnings Personal Income**

The final factor affecting relative per capita income is per capita non-earnings income. Non-earnings income consists of transfer payments, property income (dividends, interest, and rent), a residence adjustment, and personal contributions for social insurance (a negative component.) Chart 5.9 shows that the level of Washington per capita non-earnings income has exceeded the nation since 1969. Overall, Washington's per capita non-earnings income in 1994 was 5.7 percent higher than the U.S. average, adding 1.6 percent to Washington per capita income relative to the nation.

As Chart 5.10 illustrates, Washington's non-earnings per capita income exceeded the U.S. average in 1994 by $342. In spite of the fact that it is a minor component of personal income, the residence adjustment accounted for most ($236) of the difference. Residence adjustment is a significant positive for Washington State (more Washington residents commute to work out of state than vice versa) while it is a small negative for the nation. Washington also had higher per capita property income but lower transfer payments than the average U.S. resident. Washington residents contributed less on a per capita basis for social insurance than the national average. Since personal contributions for social insurance are deducted from personal income, this is a plus for Washington's relative per capita income.

**Component Contributions to Per Capita Personal Income Growth**

Charts 5.11 through 5.14 show the four basic determinants of per capita income in terms of their contributions to Washington's relative per capita income growth. The sum of these components is the difference between Washington per capita income growth and U.S. per capita income growth. Probably the most overrated determinant of relative per capita income growth is industry mix. This component was a slight positive during the Boeing expansion of the late eighties but has turned negative in the nineties. Changes in industry mix have had little impact on overall average earnings and per capita income, however. Swings in average earnings within particular industries have had a much more pronounced impact on per capita income, as illustrated in Chart 5.12. Unlike the industry mix component, differential regional earnings were a drag on Washington per capita income growth through most of the eighties, turning positive only in 1989. Since then, though, strong average earnings growth has boosted Washington per capita income growth relative to the U.S. in every year except 1994. The job ratio has also been an important factor in relative per capita income growth in shown in Chart 5.13. The job ratio was also a substantial source of Washington's per capita income growth relative to the U.S. during the boom in the second half of the eighties and continued to improve in the early nineties as Washington avoided the national recession. While the level of Washington's job ratio remains much higher than the U.S. ratio, it has lagged in terms of growth in the last two years. The result has been a drag on relative per capita income growth. The final determinant of relative per capita income, per capita non-earnings income, has had little effect on relative per capita income growth, as can be seen in Chart 5.14. While the level of per capita non-earnings income is higher in Washington, the growth rate tends to be fairly close. In addition, non-earnings sources of personal income represent less than 30 percent of total personal income, further limiting the impact relative non-earnings income growth has on relative total personal income growth.

**The Outlook for Washington Relative Per Capita Income Growth**

Charts 5.15 and 5.16 indicate the outlook for Washington per capita income growth relative to the U.S. in the November 1995 economic forecast. There are some differences in the concepts shown in these charts from the previous charts because the concepts in the economic forecast are not identical to the history provided by the Commerce Department in its state annual personal income estimates. The Washington population estimate used in the forecast is provided by Washington's Office of Financial Management rather than the Commerce Department. Also, total earnings and total employment are not available in the forecast. Total wage and salary disbursements and nonfarm wage and salary employment were used to calculate an average wage estimate. Finally, since average wages by industry are not available in the U.S. economic forecast, it was not possible to separate the industry mix effect from differential regional earnings.

Chart 5.15 shows that the November economic forecast expects Washington's per capita income to remain higher than the national average throughout the forecast horizon. The forecast expects per capita income growth in Washington to lag the nation in 1995, primarily as a result of slower growth in the job ratio. Washington is experiencing deep cutbacks in both aerospace and Hanford related employment in 1995 but local population growth continues to outpace U.S. population growth. Preliminary Commerce Department estimates through the second quarter of 1995 indicate that Washington per capita non-wage income is also growing more slowly than in the U.S. as a whole but that average wages in Washington are growing at about the national rate. Overall, Washington real per capita personal income is expected to grow 1.9 percent in 1995 compared to the national rate of 2.8 percent.

The November forecast expects Washington's total per capita income and each of its components to grow at about the national average rate in 1996 and 1997. The majority of the aerospace and Hanford cutbacks have already occurred and population growth has slowed. As a result, the job ratio is not expected to deteriorate relative to the U.S. job ratio. Both wage and price growth in the local area have slowed in recent years to about the national average rate. This trend is expected to continue through 1997. Per capita non-wage income is also expected to parallel the U.S. trend. Washington real per capita income is expected to increase 1.6 percent in 1996 and 1.2 percent in 1997 compared to the national growth rates of 1.5 percent and 1.2 percent.

# U.S. and Washington Per Capita Personal Income
# 1969 to 1994

CHART 5.1

**Real Per Capita Income**

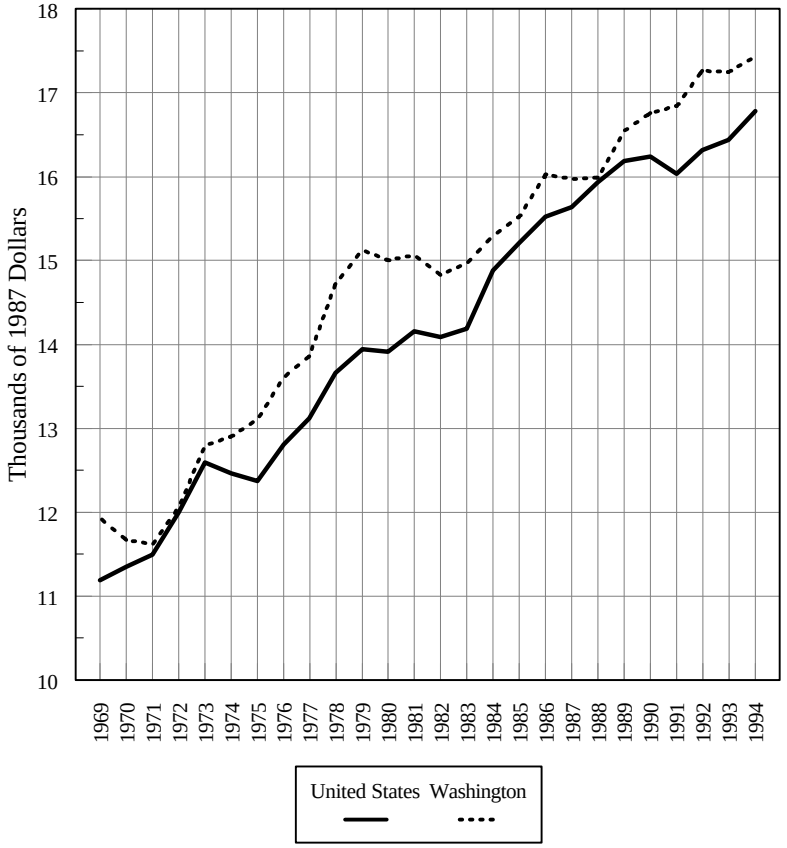
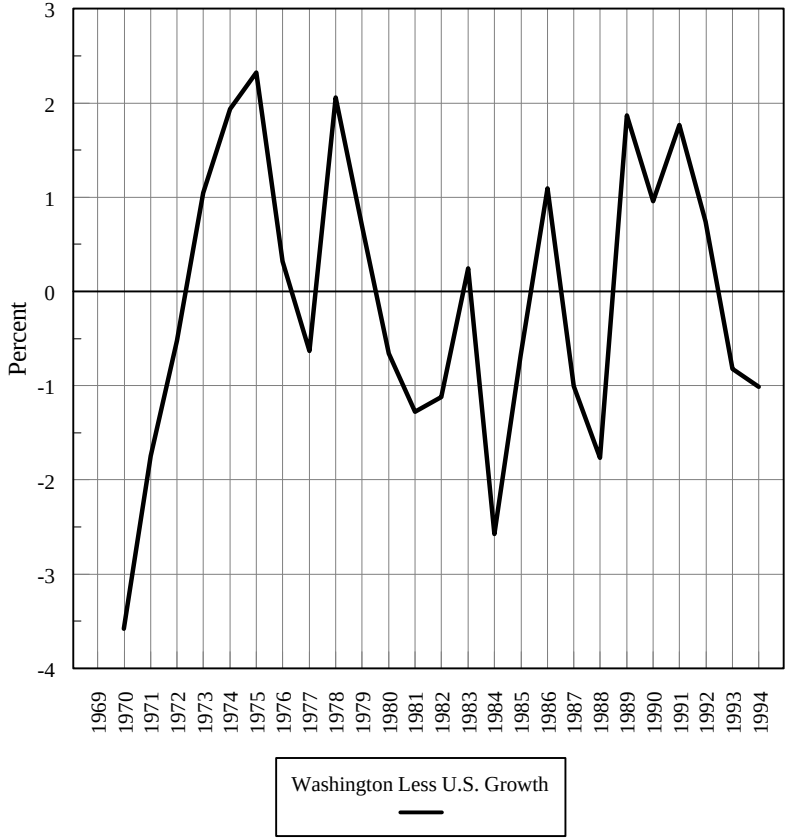



CHART 5.2

**Relative Per Capita Personal Income Growth**



# Determinants of Relative Per Capita Personal Income

CHART 5.3
**Average Earnings**

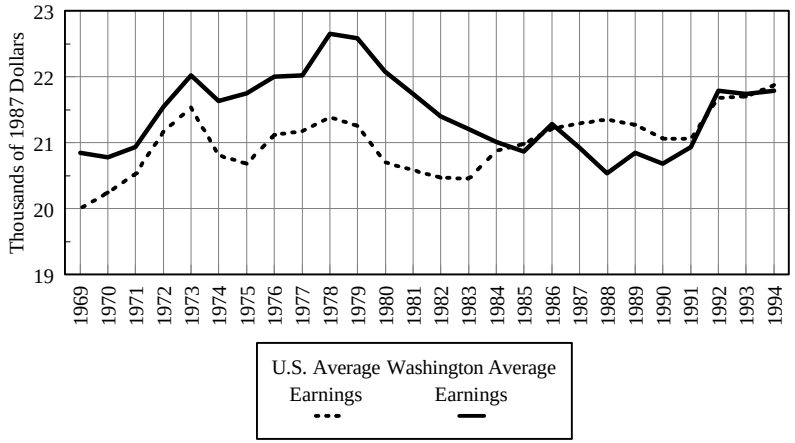



CHART 5.4
**Industry Mix**

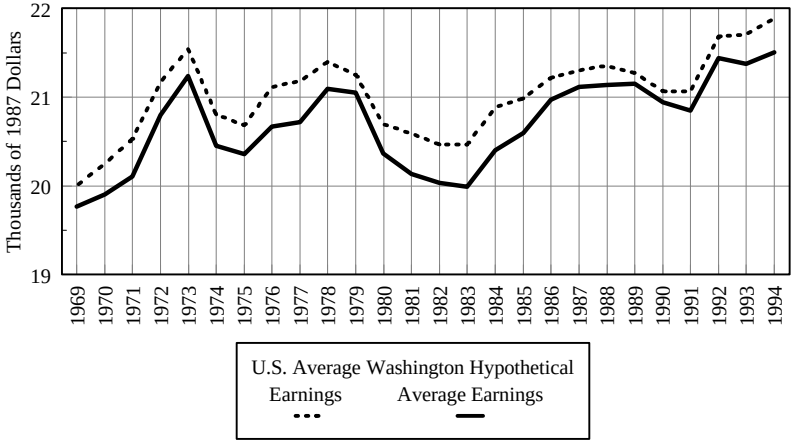



CHART 5.5
**Differential Regional Earnings**

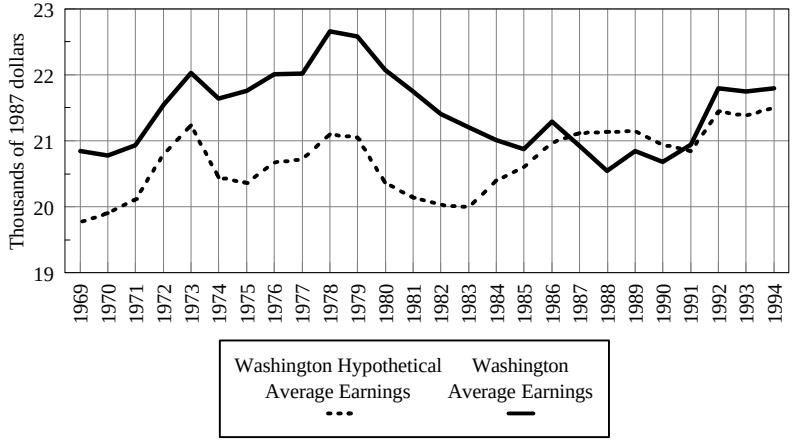
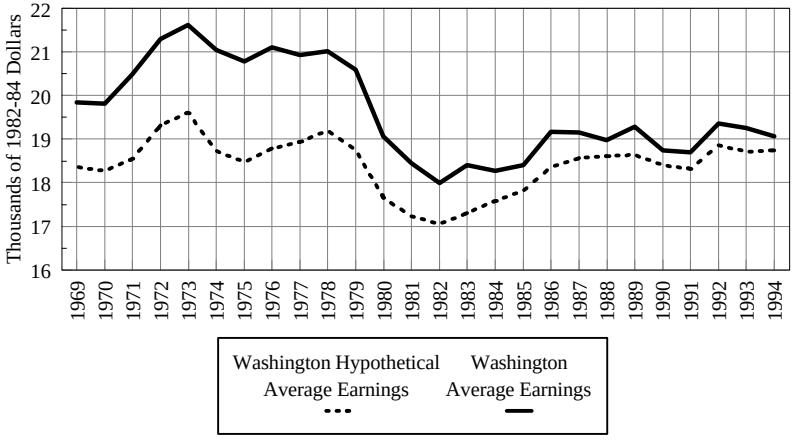



CHART 5.6
**CPI Adjusted Differential Regional Earnings**



# Determinants of Relative Per Capita Personal Income

CHART 5.7

**Job Ratio**

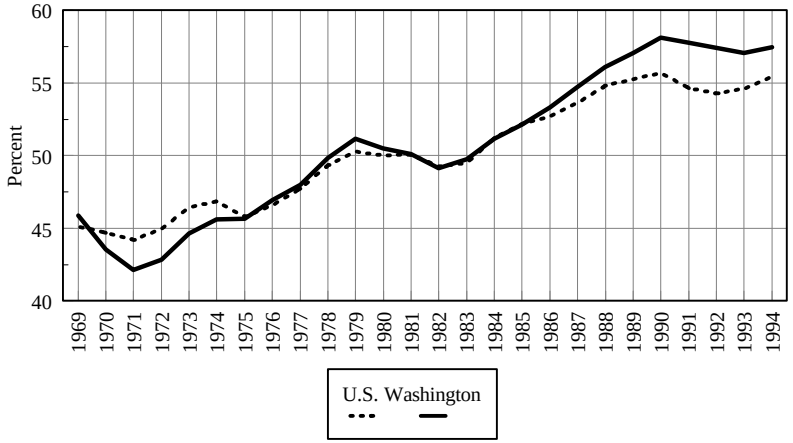



CHART 5.8

**Unemployment Rate**

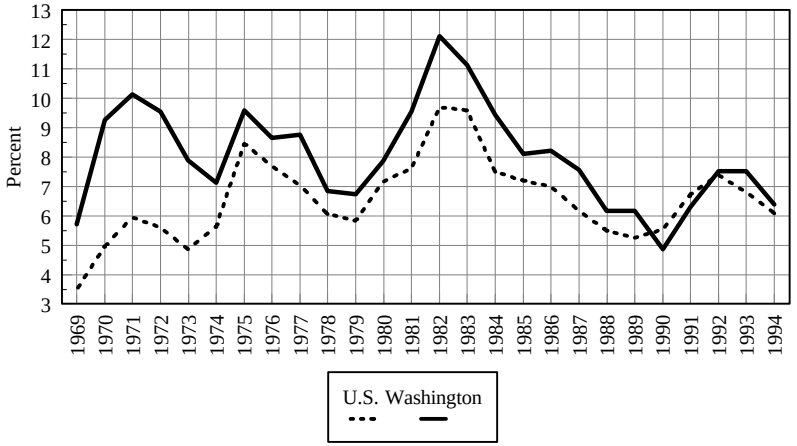



CHART 5.9

**Per Capita Non-Earnings Personal Income**

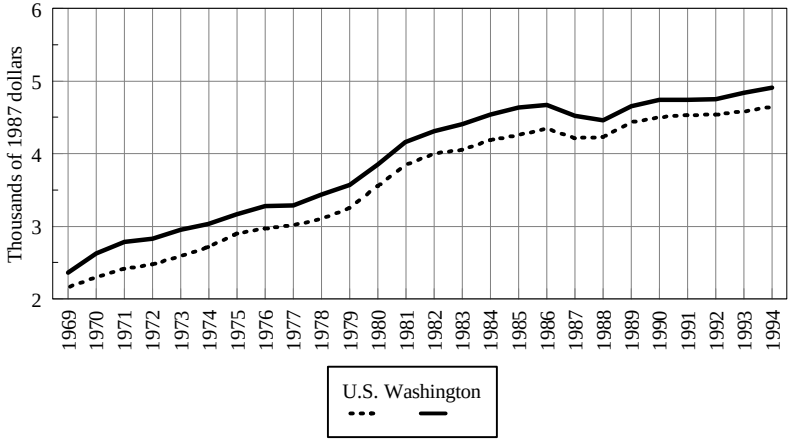
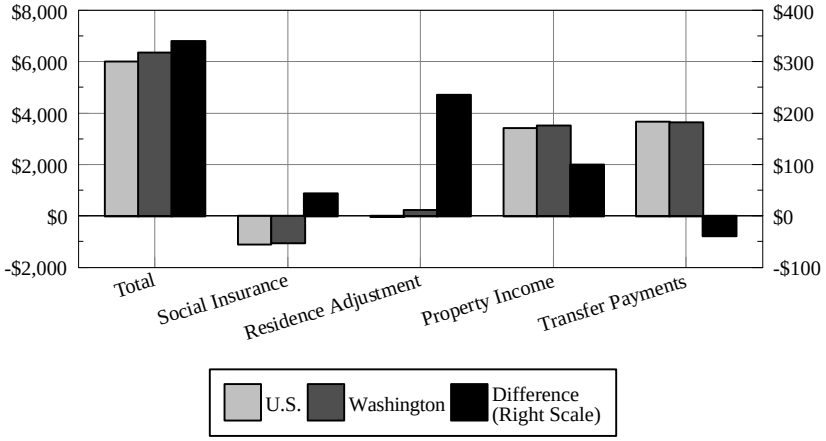



CHART 5.10

**Sources of Per Capita Non-Earnings Personal Income in 1994**



# Component Contributions to Relative Per Capita Personal Income Growth

CHART 5.11
**Industry Mix**

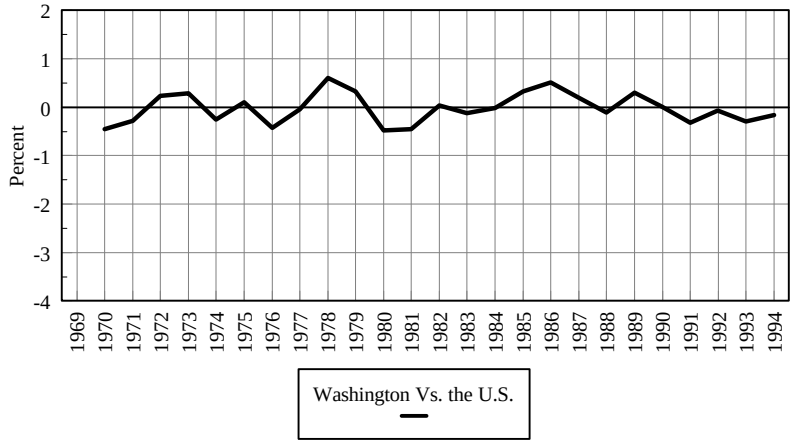



CHART 5.12
**Differential Regional Earnings**

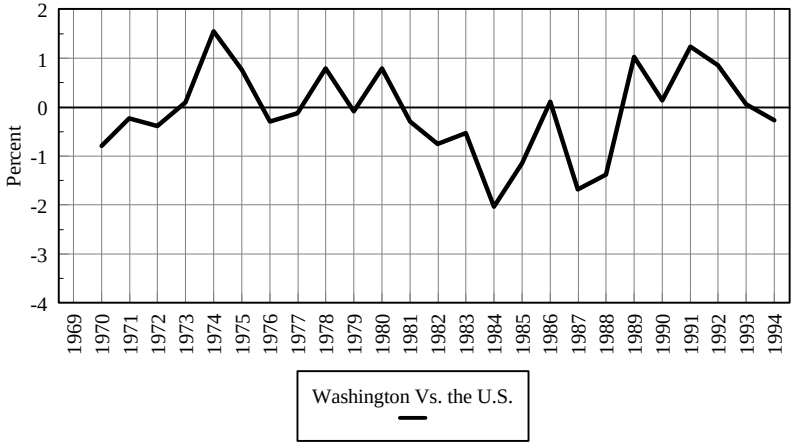



CHART 5.13
**Job Ratio**

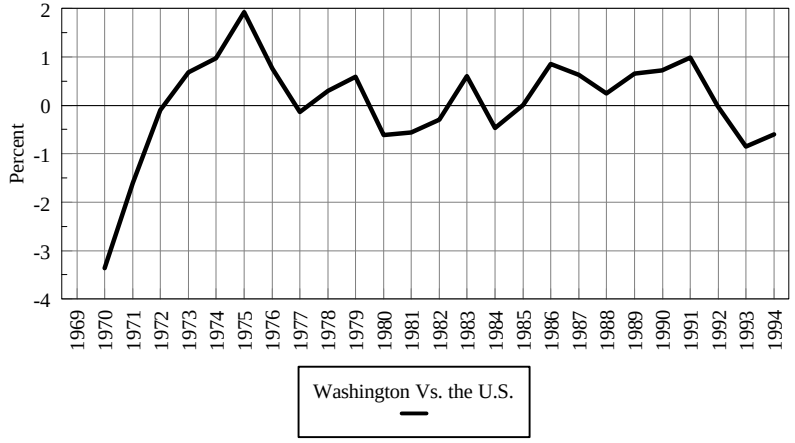
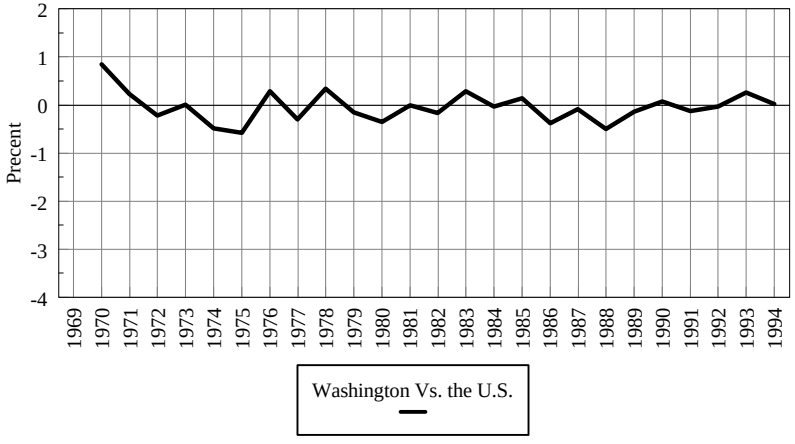



CHART 5.14
**Per Capita Non-Earnings Personal Income**



# U.S. and Washington Per Capita Personal Income Forecast
# 1994 to 1997

CHART 5.15

**Real Per Capita Income**

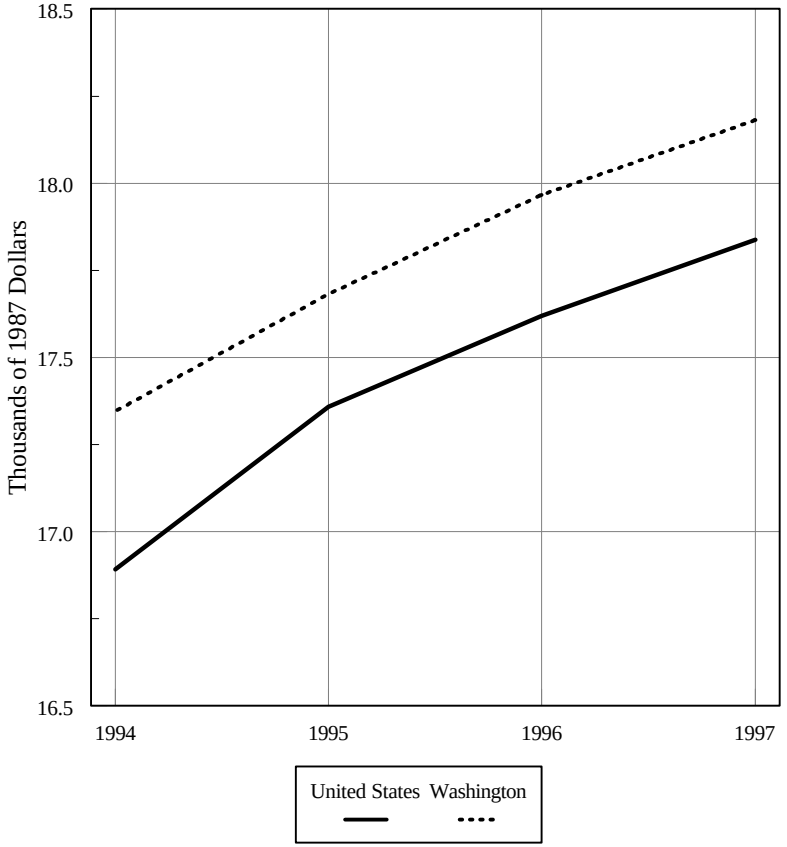
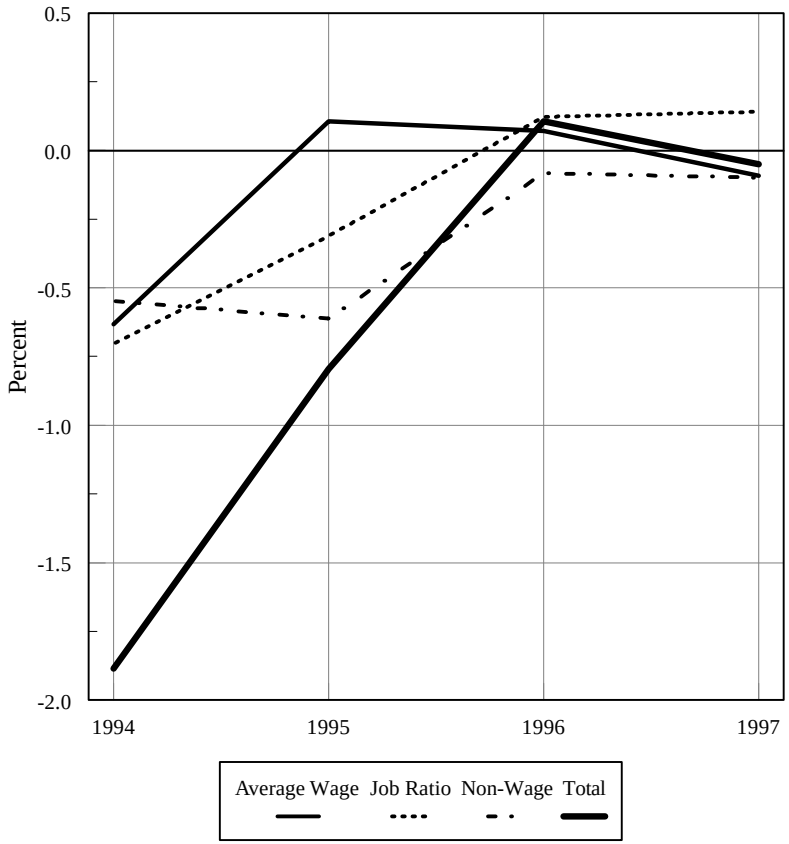



CHART 5.16

**Component Contributions to Relative Per Capita Income Growth**



# Detail Components of the Washington Economic Forecast

**Calendar Years**

TABLE 1.1

**U.S. Economic Forecast Summary**

Forecast 1995 to 1997

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| **Real National Income Accounts (Billions of 1987 Dollars)** | | | | | | | | |
| Real Gross Domestic Product | 4897.3 | 4867.7 | 4979.3 | 5134.5 | 5344.0 | 5504.2 | 5635.8 | 5784.2 |
| % Ch | 1.2 | -0.6 | 2.3 | 3.1 | 4.1 | 3.0 | 2.4 | 2.6 |
| Real Consumption | 3272.6 | 3259.4 | 3349.5 | 3458.7 | 3579.6 | 3686.4 | 3801.6 | 3896.0 |
| % Ch | 1.5 | -0.4 | 2.8 | 3.3 | 3.5 | 3.0 | 3.1 | 2.5 |
| Real Nonresidential Fixed Investment | 546.5 | 515.5 | 525.9 | 591.6 | 672.4 | 766.8 | 802.9 | 835.2 |
| % Ch | 1.2 | -5.7 | 2.0 | 12.5 | 13.7 | 14.0 | 4.7 | 4.0 |
| Real Residential Fixed Investment | 194.5 | 169.5 | 197.0 | 213.1 | 231.4 | 225.6 | 227.7 | 225.6 |
| % Ch | -9.2 | -12.9 | 16.2 | 8.2 | 8.6 | -2.5 | 0.9 | -0.9 |
| Real Personal Income | 4067.0 | 4059.4 | 4174.0 | 4245.5 | 4409.3 | 4575.2 | 4687.8 | 4789.8 |
| % Ch | 1.5 | -0.2 | 2.8 | 1.7 | 3.9 | 3.8 | 2.5 | 2.2 |
| Real Per Capita Income ($/Person) | 16,251 | 16,043 | 16,319 | 16,428 | 16,891 | 17,358 | 17,618 | 17,838 |
| % Ch | 0.4 | -1.3 | 1.7 | 0.7 | 2.8 | 2.8 | 1.5 | 1.2 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.149 | 1.197 | 1.235 | 1.266 | 1.293 | 1.322 | 1.353 | 1.388 |
| % Ch | 5.2 | 4.2 | 3.1 | 2.5 | 2.1 | 2.3 | 2.3 | 2.5 |
| U.S. Consumer Price Index (1982-84=1.0) | 1.308 | 1.363 | 1.404 | 1.446 | 1.483 | 1.526 | 1.571 | 1.618 |
| % Ch | 5.4 | 4.2 | 3.0 | 3.0 | 2.6 | 2.9 | 2.9 | 3.0 |
| Employment Cost Index (June 1989=1.0) | 1.048 | 1.088 | 1.119 | 1.151 | 1.186 | 1.220 | 1.261 | 1.300 |
| % Ch | 4.2 | 3.8 | 2.9 | 2.9 | 3.0 | 2.9 | 3.4 | 3.0 |
| **Current Dollar National Income (Billions of Dollars)** | | | | | | | | |
| Gross Domestic Product | 5546.1 | 5724.8 | 6020.3 | 6343.3 | 6738.4 | 7068.8 | 7391.4 | 7747.0 |
| % Ch | 5.6 | 3.2 | 5.2 | 5.4 | 6.2 | 4.9 | 4.6 | 4.8 |
| Personal Income | 4673.8 | 4860.3 | 5154.4 | 5375.1 | 5701.7 | 6050.1 | 6343.0 | 6646.2 |
| % Ch | 6.7 | 4.0 | 6.1 | 4.3 | 6.1 | 6.1 | 4.8 | 4.8 |
| **Employment (Millions)** | | | | | | | | |
| U.S. Civilian Labor Force | 124.8 | 125.3 | 127.0 | 128.0 | 131.0 | 132.5 | 134.6 | 136.7 |
| Total U.S. Employment | 117.9 | 116.9 | 117.6 | 119.3 | 123.1 | 125.1 | 126.9 | 128.6 |
| Unemployment Rate (%) | 5.53 | 6.74 | 7.39 | 6.81 | 6.08 | 5.63 | 5.73 | 5.87 |
| Wage and Salary Employment | 109.42 | 108.26 | 108.60 | 110.73 | 114.03 | 116.63 | 118.82 | 120.70 |
| % Ch | 1.4 | -1.1 | 0.3 | 2.0 | 3.0 | 2.3 | 1.9 | 1.6 |
| Manufacturing | 19.08 | 18.41 | 18.11 | 18.08 | 18.30 | 18.40 | 18.23 | 18.05 |
| % Ch | -1.6 | -3.5 | -1.6 | -0.2 | 1.3 | 0.5 | -0.9 | -1.0 |
| Durable Manufacturing | 11.11 | 10.57 | 10.28 | 10.22 | 10.43 | 10.58 | 10.44 | 10.26 |
| % Ch | -2.5 | -4.9 | -2.8 | -0.5 | 2.0 | 1.4 | -1.3 | -1.7 |
| Nondurable Manufacturing | 7.97 | 7.84 | 7.83 | 7.86 | 7.87 | 7.82 | 7.79 | 7.78 |
| % Ch | -0.4 | -1.6 | -0.1 | 0.3 | 0.2 | -0.7 | -0.4 | -0.0 |
| Nonmanufacturing | 90.34 | 89.85 | 90.49 | 92.65 | 95.72 | 98.23 | 100.60 | 102.65 |
| % Ch | 2.1 | -0.5 | 0.7 | 2.4 | 3.3 | 2.6 | 2.4 | 2.0 |
| Services | 27.93 | 28.33 | 29.05 | 30.19 | 31.48 | 32.82 | 34.05 | 35.28 |
| % Ch | 3.8 | 1.4 | 2.5 | 3.9 | 4.3 | 4.2 | 3.8 | 3.6 |
| **Miscellaneous Indicators** | | | | | | | | |
| Auto Sales (Millions) | 9.5 | 8.4 | 8.4 | 8.7 | 9.2 | 8.8 | 9.0 | 9.0 |
| % Ch | -4.2 | -11.7 | -0.4 | 4.3 | 5.9 | -4.5 | 2.0 | 0.6 |
| Housing Starts (Millions) | 1.203 | 1.009 | 1.201 | 1.296 | 1.446 | 1.342 | 1.298 | 1.258 |
| % Ch | -12.9 | -16.2 | 19.1 | 7.9 | 11.5 | -7.2 | -3.2 | -3.1 |
| Federal Budget Surplus (Billions) | -163.5 | -202.9 | -282.7 | -241.4 | -159.1 | -148.5 | -157.4 | -134.2 |
| Net Exports (Billions) | -71.4 | -19.9 | -30.3 | -65.3 | -98.2 | -119.2 | -125.1 | -106.0 |
| 3-Month Treasury Bill Rate (%) | 7.49 | 5.38 | 3.43 | 3.00 | 4.25 | 5.50 | 4.90 | 4.88 |
| 30-Year U.S. Govt. Bond Rate (%) | 8.61 | 8.14 | 7.67 | 6.60 | 7.37 | 6.97 | 6.38 | 6.31 |
| Mortgage Rate (%) | 10.13 | 9.25 | 8.40 | 7.33 | 8.36 | 8.02 | 7.50 | 7.57 |

TABLE 1.2

**U.S. Economic Forecast Summary**

Forecast 1995 to 1997

| | 1992:1 | 1992:2 | 1992:3 | 1992:4 | 1993:1 | 1993:2 | 1993:3 | 1993:4 |
|---|---|---|---|---|---|---|---|---|
| **Real National Income Accounts (Billions of 1987 Dollars)** | | | | | | | | |
| Real Gross Domestic Product | 4918.5 | 4947.5 | 4990.5 | 5060.7 | 5075.3 | 5105.4 | 5139.4 | 5218.0 |
| % Ch | 3.1 | 2.4 | 3.5 | 5.7 | 1.2 | 2.4 | 2.7 | 6.3 |
| Real Consumption | 3311.4 | 3325.4 | 3357.6 | 3403.4 | 3417.2 | 3439.2 | 3472.2 | 3506.2 |
| % Ch | 5.8 | 1.7 | 3.9 | 5.6 | 1.6 | 2.6 | 3.9 | 4.0 |
| Real Nonresidential Fixed Investment | 506.8 | 524.8 | 531.2 | 540.9 | 560.3 | 581.0 | 597.9 | 627.2 |
| % Ch | -0.1 | 15.0 | 5.0 | 7.5 | 15.1 | 15.6 | 12.2 | 21.1 |
| Real Residential Fixed Investment | 186.7 | 196.5 | 196.9 | 207.7 | 210.4 | 206.3 | 211.0 | 224.5 |
| % Ch | 22.4 | 22.7 | 0.8 | 23.8 | 5.3 | -7.6 | 9.4 | 28.2 |
| Real Personal Income | 4121.5 | 4141.2 | 4161.8 | 4271.4 | 4181.0 | 4244.1 | 4255.4 | 4301.6 |
| % Ch | 4.7 | 1.9 | 2.0 | 11.0 | -8.2 | 6.2 | 1.1 | 4.4 |
| Real Per Capita Income ($/Person) | 16,178 | 16,212 | 16,250 | 16,635 | 16,241 | 16,443 | 16,445 | 16,582 |
| % Ch | 3.6 | 0.8 | 0.9 | 9.8 | -9.2 | 5.1 | 0.1 | 3.4 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.221 | 1.232 | 1.237 | 1.249 | 1.257 | 1.264 | 1.268 | 1.275 |
| % Ch | 3.3 | 3.7 | 1.6 | 3.9 | 2.6 | 2.2 | 1.3 | 2.2 |
| U.S. Consumer Price Index (1982-84=1.0) | 1.388 | 1.398 | 1.409 | 1.421 | 1.432 | 1.442 | 1.448 | 1.460 |
| % Ch | 2.7 | 3.1 | 3.1 | 3.5 | 3.0 | 3.0 | 1.7 | 3.3 |
| Employment Cost Index (June 1989=1.0) | 1.110 | 1.116 | 1.121 | 1.130 | 1.139 | 1.146 | 1.156 | 1.164 |
| % Ch | 3.3 | 2.2 | 1.8 | 3.3 | 3.2 | 2.5 | 3.5 | 2.8 |
| **Current Dollar National Income (Billions of Dollars)** | | | | | | | | |
| Gross Domestic Product | 5896.8 | 5971.3 | 6043.6 | 6169.3 | 6235.9 | 6299.9 | 6359.2 | 6478.1 |
| % Ch | 7.1 | 5.2 | 4.9 | 8.6 | 4.4 | 4.2 | 3.8 | 7.7 |
| Personal Income | 5032.4 | 5101.9 | 5148.1 | 5335.0 | 5255.5 | 5364.5 | 5395.9 | 5484.6 |
| % Ch | 8.2 | 5.6 | 3.7 | 15.3 | -5.8 | 8.6 | 2.4 | 6.7 |
| **Employment (Millions)** | | | | | | | | |
| U.S. Civilian Labor Force | 126.3 | 127.1 | 127.3 | 127.2 | 127.4 | 127.9 | 128.2 | 128.7 |
| Total U.S. Employment | 117.1 | 117.6 | 117.8 | 118.0 | 118.4 | 119.0 | 119.5 | 120.3 |
| Unemployment Rate (%) | 7.27 | 7.50 | 7.50 | 7.30 | 7.03 | 6.93 | 6.73 | 6.53 |
| Wage and Salary Employment | 108.09 | 108.45 | 108.72 | 109.13 | 109.71 | 110.35 | 111.02 | 111.82 |
| % Ch | -0.2 | 1.3 | 1.0 | 1.5 | 2.2 | 2.4 | 2.4 | 2.9 |
| Manufacturing | 18.12 | 18.14 | 18.10 | 18.06 | 18.10 | 18.06 | 18.05 | 18.10 |
| % Ch | -3.4 | 0.3 | -0.7 | -0.9 | 0.8 | -0.8 | -0.3 | 1.1 |
| Durable Manufacturing | 10.31 | 10.31 | 10.27 | 10.23 | 10.24 | 10.20 | 10.19 | 10.25 |
| % Ch | -5.0 | -0.1 | -1.6 | -1.3 | 0.5 | -1.6 | -0.4 | 2.2 |
| Nondurable Manufacturing | 7.81 | 7.83 | 7.84 | 7.83 | 7.86 | 7.86 | 7.86 | 7.85 |
| % Ch | -1.3 | 0.9 | 0.4 | -0.4 | 1.3 | 0.3 | -0.3 | -0.4 |
| Nonmanufacturing | 89.97 | 90.31 | 90.62 | 91.06 | 91.61 | 92.29 | 92.97 | 93.72 |
| % Ch | 0.4 | 1.5 | 1.4 | 2.0 | 2.4 | 3.0 | 3.0 | 3.3 |
| Services | 28.69 | 28.91 | 29.16 | 29.44 | 29.74 | 30.06 | 30.34 | 30.63 |
| % Ch | 1.8 | 3.0 | 3.5 | 4.0 | 4.1 | 4.3 | 3.8 | 3.9 |
| **Miscellaneous Indicators** | | | | | | | | |
| Auto Sales (Millions) | 8.3 | 8.4 | 8.2 | 8.4 | 8.3 | 8.9 | 8.7 | 9.0 |
| % Ch | 4.9 | 2.8 | -7.6 | 9.7 | -5.3 | 33.1 | -12.1 | 15.4 |
| Housing Starts (Millions) | 1.241 | 1.153 | 1.184 | 1.228 | 1.160 | 1.245 | 1.308 | 1.473 |
| % Ch | 69.9 | -25.6 | 11.2 | 16.0 | -20.6 | 32.7 | 21.8 | 61.1 |
| Federal Budget Surplus (Billions) | -279.9 | -284.8 | -293.9 | -272.1 | -283.5 | -237.0 | -224.9 | -220.1 |
| Net Exports (Billions) | -9.9 | -31.2 | -37.8 | -42.2 | -49.6 | -63.3 | -77.0 | -71.2 |
| 3-Month Treasury Bill Rate (%) | 3.89 | 3.68 | 3.08 | 3.07 | 2.96 | 2.97 | 3.00 | 3.06 |
| 30-Year U.S. Govt. Bond Rate (%) | 7.80 | 7.90 | 7.44 | 7.53 | 7.08 | 6.86 | 6.32 | 6.13 |
| Mortgage Rate (%) | 8.71 | 8.68 | 8.01 | 8.20 | 7.72 | 7.45 | 7.08 | 7.05 |

TABLE 1.2

**U.S. Economic Forecast Summary**

Forecast 1995 to 1997

| | 1994:1 | 1994:2 | 1994:3 | 1994:4 | 1995:1 | 1995:2 | 1995:3 | 1995:4 |
|---|---|---|---|---|---|---|---|---|
| **Real National Income Accounts (Billions of 1987 Dollars)** | | | | | | | | |
| Real Gross Domestic Product | 5261.1 | 5314.1 | 5367.0 | 5433.8 | 5470.1 | 5487.8 | 5518.0 | 5541.0 |
| % Ch | 3.3 | 4.1 | 4.0 | 5.1 | 2.7 | 1.3 | 2.2 | 1.7 |
| Real Consumption | 3546.3 | 3557.8 | 3584.7 | 3629.6 | 3643.9 | 3674.3 | 3704.1 | 3723.2 |
| % Ch | 4.7 | 1.3 | 3.1 | 5.1 | 1.6 | 3.4 | 3.3 | 2.1 |
| Real Nonresidential Fixed Investment | 643.6 | 657.9 | 680.0 | 708.2 | 743.6 | 763.7 | 775.5 | 784.2 |
| % Ch | 10.9 | 9.2 | 14.1 | 17.6 | 21.5 | 11.3 | 6.3 | 4.6 |
| Real Residential Fixed Investment | 229.9 | 233.8 | 230.2 | 231.5 | 229.5 | 221.2 | 223.0 | 228.8 |
| % Ch | 10.0 | 7.0 | -6.0 | 2.3 | -3.4 | -13.7 | 3.2 | 11.0 |
| Real Personal Income | 4343.9 | 4390.9 | 4414.5 | 4487.8 | 4544.2 | 4551.6 | 4584.5 | 4620.5 |
| % Ch | 4.0 | 4.4 | 2.2 | 6.8 | 5.1 | 0.7 | 2.9 | 3.2 |
| Real Per Capita Income ($/Person) | 16,703 | 16,842 | 16,891 | 17,129 | 17,303 | 17,289 | 17,373 | 17,468 |
| % Ch | 2.9 | 3.4 | 1.2 | 5.8 | 4.1 | -0.3 | 1.9 | 2.2 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.279 | 1.289 | 1.299 | 1.305 | 1.312 | 1.320 | 1.326 | 1.332 |
| % Ch | 1.3 | 3.2 | 3.1 | 1.9 | 2.2 | 2.5 | 1.7 | 1.8 |
| U.S. Consumer Price Index (1982-84=1.0) | 1.468 | 1.477 | 1.490 | 1.498 | 1.510 | 1.522 | 1.531 | 1.541 |
| % Ch | 2.1 | 2.6 | 3.6 | 2.3 | 3.1 | 3.4 | 2.3 | 2.6 |
| Employment Cost Index (June 1989=1.0) | 1.173 | 1.183 | 1.191 | 1.198 | 1.206 | 1.215 | 1.225 | 1.235 |
| % Ch | 3.1 | 3.5 | 2.7 | 2.4 | 2.7 | 3.0 | 3.2 | 3.5 |
| **Current Dollar National Income (Billions of Dollars)** | | | | | | | | |
| Gross Domestic Product | 6574.7 | 6689.9 | 6791.7 | 6897.2 | 6977.4 | 7030.0 | 7104.8 | 7162.9 |
| % Ch | 6.1 | 7.2 | 6.2 | 6.4 | 4.7 | 3.0 | 4.3 | 3.3 |
| Personal Income | 5555.8 | 5659.9 | 5734.5 | 5856.6 | 5962.0 | 6008.1 | 6077.5 | 6152.8 |
| % Ch | 5.3 | 7.7 | 5.4 | 8.8 | 7.4 | 3.1 | 4.7 | 5.1 |
| **Employment (Millions)** | | | | | | | | |
| U.S. Civilian Labor Force | 130.7 | 130.7 | 131.1 | 131.7 | 132.3 | 132.1 | 132.4 | 133.1 |
| Total U.S. Employment | 122.1 | 122.6 | 123.2 | 124.4 | 125.0 | 124.6 | 125.0 | 125.6 |
| Unemployment Rate (%) | 6.60 | 6.20 | 5.97 | 5.57 | 5.53 | 5.70 | 5.63 | 5.65 |
| Wage and Salary Employment | 112.65 | 113.65 | 114.48 | 115.33 | 116.08 | 116.37 | 116.79 | 117.28 |
| % Ch | 3.0 | 3.6 | 3.0 | 3.0 | 2.6 | 1.0 | 1.4 | 1.7 |
| Manufacturing | 18.18 | 18.27 | 18.33 | 18.44 | 18.52 | 18.46 | 18.34 | 18.26 |
| % Ch | 1.9 | 1.9 | 1.5 | 2.3 | 1.8 | -1.1 | -2.6 | -1.7 |
| Durable Manufacturing | 10.33 | 10.40 | 10.46 | 10.55 | 10.62 | 10.61 | 10.57 | 10.52 |
| % Ch | 3.1 | 2.8 | 2.3 | 3.5 | 2.7 | -0.1 | -1.4 | -2.0 |
| Nondurable Manufacturing | 7.85 | 7.87 | 7.88 | 7.89 | 7.90 | 7.85 | 7.77 | 7.74 |
| % Ch | 0.3 | 0.7 | 0.4 | 0.7 | 0.5 | -2.5 | -4.1 | -1.3 |
| Nonmanufacturing | 94.47 | 95.38 | 96.15 | 96.89 | 97.56 | 97.91 | 98.44 | 99.01 |
| % Ch | 3.3 | 3.9 | 3.3 | 3.1 | 2.8 | 1.4 | 2.2 | 2.3 |
| Services | 30.91 | 31.32 | 31.69 | 32.02 | 32.39 | 32.65 | 32.96 | 33.27 |
| % Ch | 3.7 | 5.4 | 4.8 | 4.3 | 4.7 | 3.4 | 3.9 | 3.7 |
| **Miscellaneous Indicators** | | | | | | | | |
| Auto Sales (Millions) | 9.4 | 9.2 | 9.1 | 9.2 | 8.8 | 8.7 | 9.1 | 8.6 |
| % Ch | 23.1 | -11.8 | -2.6 | 7.1 | -16.5 | -5.1 | 18.4 | -20.5 |
| Housing Starts (Millions) | 1.361 | 1.441 | 1.471 | 1.511 | 1.308 | 1.283 | 1.391 | 1.385 |
| % Ch | -27.2 | 25.6 | 8.8 | 11.1 | -43.9 | -7.3 | 38.2 | -1.9 |
| Federal Budget Surplus (Billions) | -176.2 | -145.1 | -154.0 | -161.1 | -148.6 | -129.6 | -153.6 | -162.4 |
| Net Exports (Billions) | -86.7 | -97.6 | -109.6 | -98.9 | -111.1 | -124.7 | -118.0 | -122.8 |
| 3-Month Treasury Bill Rate (%) | 3.24 | 3.99 | 4.48 | 5.28 | 5.74 | 5.60 | 5.37 | 5.28 |
| 30-Year U.S. Govt. Bond Rate (%) | 6.56 | 7.36 | 7.59 | 7.96 | 7.64 | 6.96 | 6.72 | 6.56 |
| Mortgage Rate (%) | 7.30 | 8.45 | 8.61 | 9.10 | 8.79 | 7.92 | 7.70 | 7.66 |

TABLE 1.2

**U.S. Economic Forecast Summary**

Forecast 1995 to 1997

| | 1996:1 | 1996:2 | 1996:3 | 1996:4 | 1997:1 | 1997:2 | 1997:3 | 1997:4 |
|---|---|---|---|---|---|---|---|---|
| **Real National Income Accounts (Billions of 1987 Dollars)** | | | | | | | | |
| Real Gross Domestic Product | 5582.1 | 5617.7 | 5652.6 | 5690.6 | 5730.0 | 5767.5 | 5802.1 | 5837.2 |
| % Ch | 3.0 | 2.6 | 2.5 | 2.7 | 2.8 | 2.6 | 2.4 | 2.4 |
| Real Consumption | 3765.6 | 3789.3 | 3813.5 | 3838.0 | 3865.3 | 3886.7 | 3905.8 | 3926.3 |
| % Ch | 4.6 | 2.5 | 2.6 | 2.6 | 2.9 | 2.2 | 2.0 | 2.1 |
| Real Nonresidential Fixed Investment | 793.6 | 798.7 | 806.5 | 812.7 | 819.5 | 828.7 | 840.1 | 852.5 |
| % Ch | 4.9 | 2.6 | 4.0 | 3.1 | 3.4 | 4.6 | 5.6 | 6.0 |
| Real Residential Fixed Investment | 230.6 | 229.2 | 226.5 | 224.6 | 223.9 | 224.5 | 225.6 | 228.2 |
| % Ch | 3.1 | -2.5 | -4.6 | -3.2 | -1.3 | 1.0 | 2.0 | 4.8 |
| Real Personal Income | 4655.4 | 4675.9 | 4695.0 | 4724.8 | 4760.6 | 4780.2 | 4797.0 | 4821.4 |
| % Ch | 3.0 | 1.8 | 1.6 | 2.6 | 3.1 | 1.7 | 1.4 | 2.1 |
| Real Per Capita Income ($/Person) | 17,558 | 17,594 | 17,625 | 17,696 | 17,790 | 17,823 | 17,845 | 17,896 |
| % Ch | 2.1 | 0.8 | 0.7 | 1.6 | 2.1 | 0.7 | 0.5 | 1.1 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.339 | 1.349 | 1.358 | 1.366 | 1.374 | 1.383 | 1.392 | 1.401 |
| % Ch | 2.4 | 2.9 | 2.6 | 2.5 | 2.5 | 2.6 | 2.5 | 2.5 |
| U.S. Consumer Price Index (1982-84=1.0) | 1.553 | 1.565 | 1.577 | 1.589 | 1.600 | 1.612 | 1.624 | 1.636 |
| % Ch | 3.1 | 3.2 | 3.0 | 3.0 | 3.0 | 3.0 | 2.9 | 3.0 |
| Employment Cost Index (June 1989=1.0) | 1.246 | 1.257 | 1.267 | 1.276 | 1.285 | 1.295 | 1.305 | 1.314 |
| % Ch | 3.6 | 3.4 | 3.2 | 3.1 | 2.9 | 3.2 | 2.9 | 2.9 |
| **Current Dollar National Income (Billions of Dollars)** | | | | | | | | |
| Gross Domestic Product | 7258.7 | 7350.7 | 7435.9 | 7520.5 | 7614.9 | 7704.7 | 7791.2 | 7877.3 |
| % Ch | 5.5 | 5.2 | 4.7 | 4.6 | 5.1 | 4.8 | 4.6 | 4.5 |
| Personal Income | 6235.6 | 6307.4 | 6374.3 | 6454.6 | 6543.3 | 6612.3 | 6676.6 | 6752.5 |
| % Ch | 5.5 | 4.7 | 4.3 | 5.1 | 5.6 | 4.3 | 3.9 | 4.6 |
| **Employment (Millions)** | | | | | | | | |
| U.S. Civilian Labor Force | 133.7 | 134.3 | 134.9 | 135.4 | 135.9 | 136.4 | 136.9 | 137.4 |
| Total U.S. Employment | 126.1 | 126.6 | 127.1 | 127.6 | 128.0 | 128.4 | 128.8 | 129.2 |
| Unemployment Rate (%) | 5.66 | 5.71 | 5.76 | 5.79 | 5.81 | 5.84 | 5.89 | 5.93 |
| Wage and Salary Employment | 117.97 | 118.61 | 119.12 | 119.59 | 120.02 | 120.46 | 120.92 | 121.40 |
| % Ch | 2.4 | 2.2 | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 |
| Manufacturing | 18.25 | 18.26 | 18.22 | 18.18 | 18.12 | 18.05 | 18.02 | 17.99 |
| % Ch | -0.4 | 0.4 | -0.9 | -1.0 | -1.2 | -1.5 | -0.8 | -0.5 |
| Durable Manufacturing | 10.49 | 10.48 | 10.42 | 10.38 | 10.33 | 10.27 | 10.24 | 10.21 |
| % Ch | -1.0 | -0.6 | -2.2 | -1.7 | -1.9 | -2.2 | -1.2 | -1.0 |
| Nondurable Manufacturing | 7.75 | 7.79 | 7.80 | 7.80 | 7.80 | 7.78 | 7.78 | 7.78 |
| % Ch | 0.5 | 1.7 | 0.9 | 0.1 | -0.4 | -0.6 | -0.3 | 0.1 |
| Nonmanufacturing | 99.73 | 100.35 | 100.90 | 101.41 | 101.90 | 102.41 | 102.90 | 103.41 |
| % Ch | 2.9 | 2.5 | 2.2 | 2.1 | 1.9 | 2.0 | 2.0 | 2.0 |
| Services | 33.59 | 33.90 | 34.21 | 34.52 | 34.82 | 35.14 | 35.44 | 35.73 |
| % Ch | 3.9 | 3.8 | 3.7 | 3.7 | 3.5 | 3.7 | 3.5 | 3.4 |
| **Miscellaneous Indicators** | | | | | | | | |
| Auto Sales (Millions) | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
| % Ch | 21.9 | -2.5 | 0.5 | -0.4 | 2.7 | -0.0 | 0.4 | 0.1 |
| Housing Starts (Millions) | 1.360 | 1.317 | 1.268 | 1.248 | 1.252 | 1.253 | 1.257 | 1.270 |
| % Ch | -7.0 | -12.1 | -14.1 | -6.0 | 1.0 | 0.6 | 1.2 | 4.2 |
| Federal Budget Surplus (Billions) | -168.7 | -154.5 | -150.9 | -155.6 | -150.8 | -140.5 | -124.1 | -121.2 |
| Net Exports (Billions) | -128.7 | -127.6 | -127.5 | -116.7 | -110.8 | -107.1 | -105.5 | -100.5 |
| 3-Month Treasury Bill Rate (%) | 4.95 | 4.88 | 4.88 | 4.88 | 4.88 | 4.88 | 4.88 | 4.88 |
| 30-Year U.S. Govt. Bond Rate (%) | 6.41 | 6.31 | 6.39 | 6.41 | 6.39 | 6.34 | 6.29 | 6.22 |
| Mortgage Rate (%) | 7.51 | 7.46 | 7.49 | 7.56 | 7.58 | 7.59 | 7.57 | 7.52 |

TABLE 1.3

**Washington Economic Forecast Summary**

Forecast 1995 to 1997

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| **Real Income (Billions of 1987 Dollars)** | | | | | | | | |
| Real Personal Income | 82.150 | 84.526 | 88.832 | 90.707 | 93.143 | 96.524 | 99.581 | 102.631 |
| % Ch | 4.6 | 2.9 | 5.1 | 2.1 | 2.7 | 3.6 | 3.2 | 3.1 |
| Real Wage and Salary Disb. | 47.102 | 48.407 | 50.960 | 51.053 | 52.346 | 54.015 | 55.940 | 57.725 |
| % Ch | 5.3 | 2.8 | 5.3 | 0.2 | 2.5 | 3.2 | 3.6 | 3.2 |
| Real Nonwage Income | 35.048 | 36.118 | 37.872 | 39.654 | 40.797 | 42.509 | 43.641 | 44.906 |
| % Ch | 3.6 | 3.1 | 4.9 | 4.7 | 2.9 | 4.2 | 2.7 | 2.9 |
| Real Per Capita Income ($/Person) | 16,708 | 16,757 | 17,203 | 17,192 | 17,344 | 17,681 | 17,966 | 18,180 |
| % Ch | 1.7 | 0.3 | 2.7 | -0.1 | 0.9 | 1.9 | 1.6 | 1.2 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.149 | 1.197 | 1.235 | 1.266 | 1.293 | 1.322 | 1.353 | 1.388 |
| % Ch | 5.2 | 4.2 | 3.1 | 2.5 | 2.1 | 2.3 | 2.3 | 2.5 |
| Seattle Cons. Price Index (1982-84=1.0) | 1.268 | 1.341 | 1.390 | 1.429 | 1.478 | 1.521 | 1.563 | 1.611 |
| % Ch | 7.3 | 5.8 | 3.7 | 2.8 | 3.4 | 2.9 | 2.8 | 3.0 |
| Avg. Hourly Earnings-Mfg. ($/Hour) | 12.78 | 13.34 | 13.78 | 14.01 | 14.40 | 14.40 | 14.52 | 14.77 |
| % Ch | 4.3 | 4.4 | 3.3 | 1.7 | 2.8 | -0.0 | 0.8 | 1.7 |
| **Current Dollar Income (Billions of Dollars)** | | | | | | | | |
| Nonfarm Personal Income | 93.582 | 100.317 | 108.631 | 113.543 | 119.568 | 126.797 | 133.802 | 141.460 |
| %Ch | 10.1 | 7.2 | 8.3 | 4.5 | 5.3 | 6.0 | 5.5 | 5.7 |
| Personal Income | 94.420 | 101.207 | 109.702 | 114.842 | 120.444 | 127.643 | 134.744 | 142.411 |
| %Ch | 10.0 | 7.2 | 8.4 | 4.7 | 4.9 | 6.0 | 5.6 | 5.7 |
| Disposable Personal Income | 81.830 | 88.221 | 95.898 | 100.177 | 104.768 | 110.742 | 117.443 | 124.167 |
| %Ch | 10.3 | 7.8 | 8.7 | 4.5 | 4.6 | 5.7 | 6.1 | 5.7 |
| Per Capita Income ($/Person) | 19,201 | 20,063 | 21,244 | 21,766 | 22,427 | 23,380 | 24,308 | 25,226 |
| %Ch | 6.9 | 4.5 | 5.9 | 2.5 | 3.0 | 4.3 | 4.0 | 3.8 |
| **Employment (Thousands)** | | | | | | | | |
| Washington Civilian Labor Force | 2532.3 | 2533.7 | 2643.6 | 2698.8 | 2707.4 | 2797.2 | 2842.0 | 2914.7 |
| Total Washington Employment | 2409.0 | 2374.1 | 2444.8 | 2495.9 | 2534.0 | 2623.0 | 2664.8 | 2734.9 |
| Unemployment Rate (%) | 4.87 | 6.30 | 7.52 | 7.52 | 6.40 | 6.23 | 6.23 | 6.17 |
| Wage and Salary Employment | 2142.4 | 2177.4 | 2221.9 | 2251.7 | 2307.5 | 2363.0 | 2426.8 | 2494.0 |
| %Ch | 4.7 | 1.6 | 2.0 | 1.3 | 2.5 | 2.4 | 2.7 | 2.8 |
| Manufacturing | 369.4 | 351.9 | 347.2 | 340.8 | 337.1 | 333.7 | 335.1 | 338.8 |
| %Ch | 2.2 | -4.7 | -1.3 | -1.8 | -1.1 | -1.0 | 0.4 | 1.1 |
| Durable Manufacturing | 260.9 | 251.8 | 245.6 | 237.4 | 230.4 | 225.4 | 225.9 | 227.5 |
| %Ch | 1.1 | -3.5 | -2.4 | -3.4 | -2.9 | -2.2 | 0.2 | 0.7 |
| Aerospace | 116.2 | 115.6 | 111.9 | 102.7 | 91.8 | 81.1 | 80.0 | 79.2 |
| %Ch | 2.2 | -0.6 | -3.2 | -8.2 | -10.6 | -11.7 | -1.4 | -0.9 |
| Nondurable Manufacturing | 108.4 | 100.1 | 101.6 | 103.4 | 106.7 | 108.3 | 109.2 | 111.3 |
| %Ch | 4.9 | -7.7 | 1.4 | 1.8 | 3.2 | 1.5 | 0.8 | 1.9 |
| Nonmanufacturing | 1773.0 | 1825.5 | 1874.7 | 1910.9 | 1970.4 | 2029.2 | 2091.7 | 2155.2 |
| %Ch | 5.2 | 3.0 | 2.7 | 1.9 | 3.1 | 3.0 | 3.1 | 3.0 |
| Construction | 117.3 | 118.2 | 119.2 | 119.1 | 123.5 | 124.0 | 125.3 | 126.7 |
| %Ch | 9.9 | 0.8 | 0.9 | -0.1 | 3.7 | 0.4 | 1.0 | 1.1 |
| Services | 504.3 | 536.0 | 557.8 | 576.7 | 599.1 | 628.0 | 657.5 | 686.4 |
| %Ch | 6.8 | 6.3 | 4.1 | 3.4 | 3.9 | 4.8 | 4.7 | 4.4 |
| **Housing Indicators** | | | | | | | | |
| Housing Units Authorized (Thousands) | 48.447 | 33.012 | 39.682 | 41.342 | 44.034 | 37.807 | 37.116 | 40.374 |
| %Ch | 0.5 | -31.9 | 20.2 | 4.2 | 6.5 | -14.1 | -1.8 | 8.8 |
| Mortgage Rate (%) | 10.13 | 9.25 | 8.40 | 7.33 | 8.36 | 8.02 | 7.50 | 7.57 |

TABLE 1.4

**Washington Economic Forecast Summary**

Forecast 1995 to 1997

| | 1992:1 | 1992:2 | 1992:3 | 1992:4 | 1993:1 | 1993:2 | 1993:3 | 1993:4 |
|---|---|---|---|---|---|---|---|---|
| **Real Income (Billions of 1987 Dollars)** | | | | | | | | |
| Real Personal Income | 87.055 | 87.538 | 88.989 | 91.745 | 89.056 | 90.650 | 91.006 | 92.116 |
| % Ch | 5.6 | 2.2 | 6.8 | 13.0 | -11.2 | 7.3 | 1.6 | 5.0 |
| Real Wage and Salary Disb. | 49.925 | 49.995 | 51.028 | 52.891 | 49.997 | 51.424 | 51.352 | 51.438 |
| % Ch | 6.4 | 0.6 | 8.5 | 15.4 | -20.2 | 11.9 | -0.6 | 0.7 |
| Real Nonwage Income | 37.129 | 37.543 | 37.960 | 38.853 | 39.060 | 39.225 | 39.655 | 40.678 |
| % Ch | 4.5 | 4.5 | 4.5 | 9.7 | 2.1 | 1.7 | 4.4 | 10.7 |
| Real Per Capita Income ($/Person) | 17,014 | 17,005 | 17,183 | 17,610 | 16,993 | 17,220 | 17,211 | 17,344 |
| % Ch | 3.2 | -0.2 | 4.3 | 10.3 | -13.3 | 5.5 | -0.2 | 3.1 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.221 | 1.232 | 1.237 | 1.249 | 1.257 | 1.264 | 1.268 | 1.275 |
| % Ch | 3.3 | 3.7 | 1.6 | 3.9 | 2.6 | 2.2 | 1.3 | 2.2 |
| Seattle Cons. Price Index (1982-84=1.0) | 1.371 | 1.385 | 1.396 | 1.408 | 1.415 | 1.423 | 1.432 | 1.446 |
| % Ch | 4.0 | 4.3 | 3.1 | 3.5 | 2.1 | 2.1 | 2.6 | 4.2 |
| Avg. Hourly Earnings-Mfg. ($/Hour) | 13.65 | 13.72 | 13.83 | 13.91 | 13.89 | 14.00 | 13.99 | 14.15 |
| % Ch | 3.5 | 1.9 | 3.5 | 2.3 | -0.6 | 3.1 | -0.1 | 4.6 |
| **Current Dollar Income (Billions of Dollars)** | | | | | | | | |
| Nonfarm Personal Income | 105.233 | 106.807 | 109.154 | 113.329 | 110.829 | 113.376 | 114.334 | 115.633 |
| %Ch | 9.5 | 6.1 | 9.1 | 16.2 | -8.5 | 9.5 | 3.4 | 4.6 |
| Personal Income | 106.294 | 107.847 | 110.079 | 114.589 | 111.944 | 114.581 | 115.396 | 117.448 |
| %Ch | 9.1 | 6.0 | 8.5 | 17.4 | -8.9 | 9.8 | 2.9 | 7.3 |
| Disposable Personal Income | 92.960 | 94.346 | 96.221 | 100.065 | 97.943 | 99.931 | 100.524 | 102.308 |
| %Ch | 10.3 | 6.1 | 8.2 | 17.0 | -8.2 | 8.4 | 2.4 | 7.3 |
| Per Capita Income ($/Person) | 20,774 | 20,950 | 21,256 | 21,995 | 21,360 | 21,766 | 21,824 | 22,114 |
| %Ch | 6.6 | 3.4 | 6.0 | 14.6 | -11.1 | 7.8 | 1.1 | 5.4 |
| **Employment (Thousands)** | | | | | | | | |
| Washington Civilian Labor Force | 2598.1 | 2633.2 | 2662.8 | 2680.4 | 2682.7 | 2698.0 | 2703.5 | 2711.0 |
| Total Washington Employment | 2413.6 | 2439.8 | 2457.8 | 2468.2 | 2475.8 | 2489.7 | 2498.1 | 2520.0 |
| Unemployment Rate (%) | 7.10 | 7.35 | 7.70 | 7.91 | 7.71 | 7.72 | 7.60 | 7.05 |
| Wage and Salary Employment | 2210.7 | 2216.8 | 2221.0 | 2239.1 | 2236.5 | 2246.4 | 2250.7 | 2273.3 |
| %Ch | 2.7 | 1.1 | 0.7 | 3.3 | -0.5 | 1.8 | 0.8 | 4.1 |
| Manufacturing | 349.2 | 348.5 | 345.9 | 345.1 | 344.4 | 342.2 | 338.5 | 337.9 |
| %Ch | -1.4 | -0.7 | -2.9 | -0.9 | -0.8 | -2.5 | -4.2 | -0.7 |
| Durable Manufacturing | 248.6 | 246.7 | 244.1 | 243.0 | 241.4 | 239.3 | 235.3 | 233.5 |
| %Ch | -1.7 | -3.0 | -4.2 | -1.7 | -2.6 | -3.5 | -6.6 | -3.0 |
| Aerospace | 114.6 | 113.0 | 110.8 | 109.1 | 106.9 | 104.6 | 101.4 | 98.0 |
| %Ch | -3.1 | -5.6 | -7.6 | -6.0 | -7.5 | -8.5 | -11.7 | -12.9 |
| Nondurable Manufacturing | 100.6 | 101.8 | 101.9 | 102.1 | 103.0 | 102.9 | 103.3 | 104.5 |
| %Ch | -0.9 | 5.1 | 0.2 | 0.9 | 3.5 | -0.2 | 1.3 | 4.7 |
| Nonmanufacturing | 1861.6 | 1868.3 | 1875.0 | 1894.0 | 1892.1 | 1904.2 | 1912.1 | 1935.4 |
| %Ch | 3.5 | 1.4 | 1.4 | 4.1 | -0.4 | 2.6 | 1.7 | 4.9 |
| Construction | 118.9 | 118.8 | 118.5 | 120.7 | 118.2 | 116.6 | 118.6 | 122.9 |
| %Ch | -0.3 | -0.4 | -1.1 | 7.9 | -8.0 | -5.4 | 7.2 | 15.2 |
| Services | 549.4 | 553.6 | 559.6 | 568.6 | 568.7 | 575.9 | 577.8 | 584.4 |
| %Ch | 2.5 | 3.1 | 4.4 | 6.6 | 0.1 | 5.2 | 1.3 | 4.6 |
| **Housing Indicators** | | | | | | | | |
| Housing Units Authorized (Thousands) | 41.403 | 39.263 | 37.393 | 40.670 | 35.115 | 39.803 | 42.513 | 47.937 |
| %Ch | 189.3 | -19.1 | -17.7 | 39.9 | -44.4 | 65.1 | 30.1 | 61.7 |
| Mortgage Rate (%) | 8.71 | 8.68 | 8.01 | 8.20 | 7.72 | 7.45 | 7.08 | 7.05 |

TABLE 1.4

**Washington Economic Forecast Summary**

Forecast 1995 to 1997

| | 1994:1 | 1994:2 | 1994:3 | 1994:4 | 1995:1 | 1995:2 | 1995:3 | 1995:4 |
|---|---|---|---|---|---|---|---|---|
| **Real Income (Billions of 1987 Dollars)** | | | | | | | | |
| Real Personal Income | 91.658 | 93.043 | 93.025 | 94.847 | 95.125 | 96.152 | 97.220 | 97.599 |
| % Ch | -2.0 | 6.2 | -0.1 | 8.1 | 1.2 | 4.4 | 4.5 | 1.6 |
| Real Wage and Salary Disb. | 51.621 | 52.476 | 52.112 | 53.174 | 53.190 | 53.857 | 54.449 | 54.566 |
| % Ch | 1.4 | 6.8 | -2.8 | 8.4 | 0.1 | 5.1 | 4.5 | 0.9 |
| Real Nonwage Income | 40.038 | 40.566 | 40.913 | 41.673 | 41.935 | 42.295 | 42.771 | 43.033 |
| % Ch | -6.1 | 5.4 | 3.5 | 7.6 | 2.5 | 3.5 | 4.6 | 2.5 |
| Real Per Capita Income ($/Person) | 17,182 | 17,364 | 17,284 | 17,545 | 17,519 | 17,645 | 17,777 | 17,783 |
| % Ch | -3.7 | 4.3 | -1.8 | 6.2 | -0.6 | 2.9 | 3.0 | 0.1 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.279 | 1.289 | 1.299 | 1.305 | 1.312 | 1.320 | 1.326 | 1.332 |
| % Ch | 1.3 | 3.2 | 3.1 | 1.9 | 2.2 | 2.5 | 1.7 | 1.8 |
| Seattle Cons. Price Index (1982-84=1.0) | 1.458 | 1.470 | 1.486 | 1.498 | 1.507 | 1.517 | 1.526 | 1.535 |
| % Ch | 3.1 | 3.6 | 4.4 | 3.1 | 2.5 | 2.8 | 2.2 | 2.5 |
| Avg. Hourly Earnings-Mfg. ($/Hour) | 14.40 | 14.35 | 14.36 | 14.51 | 14.47 | 14.46 | 14.30 | 14.36 |
| % Ch | 7.2 | -1.5 | 0.4 | 4.1 | -1.1 | -0.2 | -4.5 | 1.7 |
| **Current Dollar Income (Billions of Dollars)** | | | | | | | | |
| Nonfarm Personal Income | 116.370 | 119.085 | 120.144 | 122.673 | 124.001 | 126.134 | 128.054 | 128.999 |
| %Ch | 2.6 | 9.7 | 3.6 | 8.7 | 4.4 | 7.1 | 6.2 | 3.0 |
| Personal Income | 117.231 | 119.932 | 120.839 | 123.775 | 124.804 | 126.921 | 128.880 | 129.965 |
| %Ch | -0.7 | 9.5 | 3.1 | 10.1 | 3.4 | 7.0 | 6.3 | 3.4 |
| Disposable Personal Income | 101.975 | 104.116 | 105.157 | 107.825 | 108.526 | 109.871 | 111.791 | 112.780 |
| %Ch | -1.3 | 8.7 | 4.1 | 10.5 | 2.6 | 5.0 | 7.2 | 3.6 |
| Per Capita Income ($/Person) | 21,976 | 22,383 | 22,452 | 22,896 | 22,985 | 23,291 | 23,566 | 23,680 |
| %Ch | -2.5 | 7.6 | 1.2 | 8.1 | 1.6 | 5.4 | 4.8 | 1.9 |
| **Employment (Thousands)** | | | | | | | | |
| Washington Civilian Labor Force | 2718.9 | 2697.0 | 2696.9 | 2716.7 | 2769.8 | 2809.8 | 2806.1 | 2803.1 |
| Total Washington Employment | 2535.7 | 2517.7 | 2530.2 | 2552.3 | 2606.0 | 2635.9 | 2625.0 | 2625.0 |
| Unemployment Rate (%) | 6.74 | 6.65 | 6.18 | 6.05 | 5.92 | 6.19 | 6.45 | 6.35 |
| Wage and Salary Employment | 2286.0 | 2294.9 | 2314.3 | 2335.0 | 2353.3 | 2354.0 | 2371.0 | 2373.6 |
| %Ch | 2.2 | 1.6 | 3.4 | 3.6 | 3.2 | 0.1 | 2.9 | 0.4 |
| Manufacturing | 337.0 | 336.2 | 336.7 | 338.6 | 343.4 | 339.1 | 333.3 | 319.1 |
| %Ch | -1.2 | -0.9 | 0.6 | 2.3 | 5.8 | -4.9 | -6.6 | -16.0 |
| Durable Manufacturing | 231.4 | 229.9 | 229.7 | 230.5 | 233.7 | 230.8 | 225.9 | 211.2 |
| %Ch | -3.5 | -2.5 | -0.5 | 1.4 | 5.8 | -5.0 | -8.3 | -23.5 |
| Aerospace | 94.3 | 92.3 | 90.7 | 90.1 | 89.4 | 87.5 | 81.5 | 66.2 |
| %Ch | -14.3 | -8.0 | -7.0 | -2.3 | -3.4 | -8.1 | -24.8 | -56.4 |
| Nondurable Manufacturing | 105.6 | 106.3 | 107.0 | 108.1 | 109.7 | 108.3 | 107.5 | 107.9 |
| %Ch | 4.2 | 2.8 | 2.8 | 4.1 | 5.8 | -4.8 | -3.0 | 1.6 |
| Nonmanufacturing | 1949.0 | 1958.7 | 1977.6 | 1996.4 | 2009.9 | 2014.9 | 2037.6 | 2054.5 |
| %Ch | 2.9 | 2.0 | 3.9 | 3.9 | 2.7 | 1.0 | 4.6 | 3.4 |
| Construction | 123.2 | 123.5 | 123.9 | 123.5 | 123.8 | 122.7 | 124.5 | 124.9 |
| %Ch | 0.8 | 1.0 | 1.5 | -1.5 | 1.2 | -3.5 | 5.8 | 1.3 |
| Services | 587.4 | 593.2 | 604.9 | 610.8 | 616.3 | 621.8 | 633.0 | 641.0 |
| %Ch | 2.1 | 4.0 | 8.1 | 3.9 | 3.7 | 3.6 | 7.3 | 5.2 |
| **Housing Indicators** | | | | | | | | |
| Housing Units Authorized (Thousands) | 44.099 | 43.542 | 45.484 | 43.011 | 37.932 | 41.787 | 34.544 | 36.965 |
| %Ch | -28.4 | -5.0 | 19.1 | -20.0 | -39.5 | 47.3 | -53.3 | 31.1 |
| Mortgage Rate (%) | 7.30 | 8.45 | 8.61 | 9.10 | 8.79 | 7.92 | 7.70 | 7.66 |

TABLE 1.4

**Washington Economic Forecast Summary**

Forecast 1995 to 1997

| | 1996:1 | 1996:2 | 1996:3 | 1996:4 | 1997:1 | 1997:2 | 1997:3 | 1997:4 |
|---|---|---|---|---|---|---|---|---|
| **Real Income (Billions of 1987 Dollars)** | | | | | | | | |
| Real Personal Income | 98.722 | 99.211 | 99.834 | 100.558 | 101.538 | 102.255 | 102.976 | 103.755 |
| % Ch | 4.7 | 2.0 | 2.5 | 2.9 | 4.0 | 2.9 | 2.9 | 3.1 |
| Real Wage and Salary Disb. | 55.466 | 55.722 | 56.088 | 56.485 | 56.996 | 57.501 | 57.967 | 58.436 |
| % Ch | 6.8 | 1.9 | 2.6 | 2.9 | 3.7 | 3.6 | 3.3 | 3.3 |
| Real Nonwage Income | 43.256 | 43.489 | 43.746 | 44.073 | 44.542 | 44.754 | 45.009 | 45.319 |
| % Ch | 2.1 | 2.2 | 2.4 | 3.0 | 4.3 | 1.9 | 2.3 | 2.8 |
| Real Per Capita Income ($/Person) | 17,924 | 17,939 | 17,974 | 18,025 | 18,118 | 18,159 | 18,199 | 18,245 |
| % Ch | 3.2 | 0.3 | 0.8 | 1.1 | 2.1 | 0.9 | 0.9 | 1.0 |
| **Price and Wage Indexes** | | | | | | | | |
| U.S. Implicit Price Deflator (1987=1.0) | 1.339 | 1.349 | 1.358 | 1.366 | 1.374 | 1.383 | 1.392 | 1.401 |
| % Ch | 2.4 | 2.9 | 2.6 | 2.5 | 2.5 | 2.6 | 2.5 | 2.5 |
| Seattle Cons. Price Index (1982-84=1.0) | 1.546 | 1.558 | 1.569 | 1.581 | 1.592 | 1.604 | 1.617 | 1.629 |
| % Ch | 2.9 | 3.0 | 2.9 | 2.9 | 3.0 | 3.1 | 3.1 | 3.2 |
| Avg. Hourly Earnings-Mfg. ($/Hour) | 14.43 | 14.49 | 14.55 | 14.61 | 14.67 | 14.74 | 14.80 | 14.87 |
| % Ch | 1.8 | 1.7 | 1.6 | 1.7 | 1.7 | 1.9 | 1.8 | 1.9 |
| **Current Dollar Income (Billions of Dollars)** | | | | | | | | |
| Nonfarm Personal Income | 131.260 | 132.866 | 134.674 | 136.407 | 138.594 | 140.479 | 142.428 | 144.337 |
| %Ch | 7.2 | 5.0 | 5.6 | 5.2 | 6.6 | 5.6 | 5.7 | 5.5 |
| Personal Income | 132.232 | 133.828 | 135.542 | 137.375 | 139.560 | 141.445 | 143.325 | 145.312 |
| %Ch | 7.2 | 4.9 | 5.2 | 5.5 | 6.5 | 5.5 | 5.4 | 5.7 |
| Disposable Personal Income | 115.222 | 116.563 | 118.227 | 119.760 | 121.754 | 123.346 | 124.952 | 126.618 |
| %Ch | 8.9 | 4.7 | 5.8 | 5.3 | 6.8 | 5.3 | 5.3 | 5.4 |
| Per Capita Income ($/Person) | 24,008 | 24,198 | 24,403 | 24,625 | 24,902 | 25,119 | 25,329 | 25,553 |
| %Ch | 5.7 | 3.2 | 3.4 | 3.7 | 4.6 | 3.5 | 3.4 | 3.6 |
| **Employment (Thousands)** | | | | | | | | |
| Washington Civilian Labor Force | 2817.2 | 2833.2 | 2850.3 | 2867.2 | 2885.3 | 2904.7 | 2924.5 | 2944.5 |
| Total Washington Employment | 2640.5 | 2656.1 | 2673.3 | 2689.4 | 2707.3 | 2725.6 | 2744.2 | 2762.7 |
| Unemployment Rate (%) | 6.27 | 6.25 | 6.21 | 6.20 | 6.17 | 6.16 | 6.16 | 6.17 |
| Wage and Salary Employment | 2403.5 | 2418.5 | 2434.9 | 2450.4 | 2467.5 | 2485.0 | 2502.8 | 2520.6 |
| %Ch | 5.1 | 2.5 | 2.7 | 2.6 | 2.8 | 2.9 | 2.9 | 2.9 |
| Manufacturing | 334.3 | 334.8 | 335.4 | 335.9 | 337.0 | 338.1 | 339.4 | 340.7 |
| %Ch | 20.4 | 0.6 | 0.7 | 0.7 | 1.3 | 1.3 | 1.5 | 1.6 |
| Durable Manufacturing | 225.9 | 225.8 | 225.8 | 225.9 | 226.4 | 227.0 | 227.8 | 228.6 |
| %Ch | 30.9 | -0.2 | 0.1 | 0.1 | 1.0 | 1.1 | 1.4 | 1.4 |
| Aerospace | 80.7 | 80.2 | 79.7 | 79.2 | 79.2 | 79.2 | 79.2 | 79.2 |
| %Ch | 120.8 | -2.5 | -2.5 | -2.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Nondurable Manufacturing | 108.4 | 109.0 | 109.5 | 110.0 | 110.6 | 111.1 | 111.5 | 112.1 |
| %Ch | 1.8 | 2.2 | 2.0 | 1.9 | 2.0 | 1.7 | 1.7 | 1.9 |
| Nonmanufacturing | 2069.2 | 2083.7 | 2099.5 | 2114.4 | 2130.4 | 2146.9 | 2163.5 | 2179.9 |
| %Ch | 2.9 | 2.8 | 3.1 | 2.9 | 3.1 | 3.1 | 3.1 | 3.1 |
| Construction | 125.1 | 124.8 | 125.5 | 125.7 | 126.1 | 126.4 | 126.8 | 127.3 |
| %Ch | 0.8 | -1.1 | 2.2 | 0.9 | 1.0 | 1.2 | 1.3 | 1.6 |
| Services | 647.4 | 654.0 | 660.8 | 667.6 | 674.8 | 682.6 | 690.3 | 697.7 |
| %Ch | 4.1 | 4.1 | 4.2 | 4.2 | 4.4 | 4.7 | 4.6 | 4.4 |
| **Housing Indicators** | | | | | | | | |
| Housing Units Authorized (Thousands) | 36.461 | 36.856 | 37.226 | 37.920 | 39.047 | 39.784 | 40.824 | 41.839 |
| %Ch | -5.3 | 4.4 | 4.1 | 7.7 | 12.4 | 7.8 | 10.9 | 10.3 |
| Mortgage Rate (%) | 7.51 | 7.46 | 7.49 | 7.56 | 7.58 | 7.59 | 7.57 | 7.52 |

TABLE 2.1
**U.S. Nonagricultural Employment by Industry**
Forecast 1995 to 1997

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Wage and Salary Employment | 109.42 | 108.26 | 108.60 | 110.73 | 114.03 | 116.63 | 118.82 | 120.70 |
| % Ch | 1.4 | -1.1 | 0.3 | 2.0 | 3.0 | 2.3 | 1.9 | 1.6 |
| Manufacturing | 19.08 | 18.41 | 18.11 | 18.08 | 18.30 | 18.40 | 18.23 | 18.05 |
| % Ch | -1.6 | -3.5 | -1.6 | -0.2 | 1.3 | 0.5 | -0.9 | -1.0 |
| Nondurable Manufacturing | 7.97 | 7.84 | 7.83 | 7.86 | 7.87 | 7.82 | 7.79 | 7.78 |
| % Ch | -0.4 | -1.6 | -0.1 | 0.3 | 0.2 | -0.7 | -0.4 | -0.0 |
| Food and Kindred Products | 1.66 | 1.67 | 1.66 | 1.68 | 1.68 | 1.69 | 1.69 | 1.69 |
| % Ch | 1.0 | 0.4 | -0.3 | 1.0 | 0.0 | 0.3 | 0.1 | -0.0 |
| Pulp and Paper | 0.70 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.68 |
| % Ch | 0.2 | -1.3 | 0.4 | 0.2 | -0.1 | -0.5 | -0.2 | -0.5 |
| Apparel | 1.04 | 1.01 | 1.01 | 0.99 | 0.97 | 0.92 | 0.91 | 0.91 |
| % Ch | -3.7 | -2.9 | 0.1 | -1.8 | -2.0 | -4.8 | -1.0 | -0.7 |
| Printing | 1.57 | 1.54 | 1.51 | 1.52 | 1.54 | 1.55 | 1.56 | 1.58 |
| % Ch | 0.9 | -2.1 | -1.9 | 0.7 | 1.6 | 0.9 | 0.2 | 1.3 |
| Chemicals | 1.09 | 1.08 | 1.08 | 1.08 | 1.06 | 1.05 | 1.06 | 1.05 |
| % Ch | 1.1 | -0.9 | 0.8 | -0.3 | -1.9 | -1.3 | 1.0 | -0.4 |
| Other Nondurables | 1.92 | 1.86 | 1.88 | 1.90 | 1.93 | 1.92 | 1.88 | 1.88 |
| % Ch | -1.7 | -2.8 | 0.7 | 1.1 | 1.8 | -0.6 | -1.8 | -0.4 |
| Durable Manufacturing | 11.11 | 10.57 | 10.28 | 10.22 | 10.43 | 10.58 | 10.44 | 10.26 |
| % Ch | -2.5 | -4.9 | -2.8 | -0.5 | 2.0 | 1.4 | -1.3 | -1.7 |
| Lumber and Wood | 0.73 | 0.68 | 0.68 | 0.71 | 0.75 | 0.76 | 0.75 | 0.75 |
| % Ch | -3.0 | -7.9 | 0.7 | 4.3 | 6.1 | 0.8 | -0.8 | -0.9 |
| Furniture | 0.51 | 0.47 | 0.48 | 0.49 | 0.50 | 0.50 | 0.50 | 0.50 |
| % Ch | -3.6 | -6.2 | 0.6 | 1.9 | 3.1 | -0.4 | 0.1 | 0.7 |
| Stone-Clay-Glass | 0.56 | 0.52 | 0.51 | 0.52 | 0.53 | 0.54 | 0.54 | 0.53 |
| % Ch | -2.1 | -6.2 | -1.6 | 0.7 | 3.0 | 1.6 | -0.9 | -1.4 |
| Primary Metals | 0.76 | 0.72 | 0.69 | 0.68 | 0.70 | 0.71 | 0.70 | 0.68 |
| % Ch | -2.0 | -4.4 | -3.9 | -1.6 | 2.3 | 1.9 | -1.7 | -2.2 |
| Fabricated Metals | 1.42 | 1.36 | 1.33 | 1.34 | 1.39 | 1.43 | 1.43 | 1.42 |
| % Ch | -1.8 | -4.5 | -1.9 | 0.7 | 3.6 | 3.2 | -0.2 | -0.6 |
| Nonelectrical Machinery | 2.09 | 2.00 | 1.93 | 1.93 | 1.98 | 2.04 | 2.03 | 1.99 |
| % Ch | -1.4 | -4.5 | -3.5 | 0.1 | 2.8 | 2.7 | -0.6 | -1.9 |
| Electrical Machinery | 1.67 | 1.59 | 1.53 | 1.53 | 1.57 | 1.62 | 1.63 | 1.61 |
| % Ch | -4.1 | -4.9 | -4.0 | -0.2 | 2.9 | 3.2 | 0.3 | -1.0 |
| Transportation Equipment | 1.99 | 1.89 | 1.83 | 1.76 | 1.75 | 1.74 | 1.65 | 1.56 |
| % Ch | -3.1 | -5.0 | -3.2 | -4.0 | -0.4 | -0.3 | -5.4 | -5.4 |
| Instruments | 1.01 | 0.97 | 0.93 | 0.90 | 0.86 | 0.84 | 0.83 | 0.83 |
| % Ch | -1.9 | -3.2 | -4.7 | -3.6 | -3.6 | -2.3 | -1.0 | -1.1 |
| Other Durables | 0.38 | 0.37 | 0.37 | 0.38 | 0.39 | 0.39 | 0.39 | 0.39 |
| % Ch | -1.6 | -2.6 | 0.6 | 2.8 | 3.2 | 0.3 | -1.0 | 1.5 |
| Nonmanufacturing | 90.34 | 89.85 | 90.49 | 92.65 | 95.72 | 98.23 | 100.60 | 102.65 |
| % Ch | 2.1 | -0.5 | 0.7 | 2.4 | 3.3 | 2.6 | 2.4 | 2.0 |
| Mining | 0.71 | 0.69 | 0.63 | 0.61 | 0.60 | 0.58 | 0.57 | 0.56 |
| % Ch | 2.6 | -2.9 | -7.9 | -3.9 | -1.6 | -3.5 | -2.3 | -1.5 |
| Construction | 5.12 | 4.65 | 4.49 | 4.66 | 5.01 | 5.24 | 5.32 | 5.27 |
| % Ch | -0.9 | -9.2 | -3.5 | 3.8 | 7.3 | 4.7 | 1.6 | -1.0 |
| Trans., Comm. and Utilities | 5.79 | 5.76 | 5.72 | 5.83 | 6.01 | 6.20 | 6.29 | 6.35 |
| % Ch | 3.0 | -0.5 | -0.7 | 1.9 | 3.0 | 3.2 | 1.5 | 1.0 |
| Wholesale Trade | 6.17 | 6.08 | 6.00 | 5.98 | 6.14 | 6.32 | 6.44 | 6.53 |
| % Ch | -0.2 | -1.5 | -1.4 | -0.3 | 2.6 | 2.9 | 1.9 | 1.4 |
| Retail Trade | 19.60 | 19.28 | 19.36 | 19.77 | 20.44 | 20.84 | 21.29 | 21.71 |
| % Ch | 0.7 | -1.6 | 0.4 | 2.2 | 3.4 | 2.0 | 2.2 | 2.0 |
| Finance-Insurance-Real Estate | 6.71 | 6.65 | 6.60 | 6.76 | 6.93 | 6.94 | 7.03 | 7.04 |
| % Ch | 0.6 | -0.9 | -0.7 | 2.3 | 2.6 | 0.1 | 1.3 | 0.2 |
| Services | 27.93 | 28.33 | 29.05 | 30.19 | 31.48 | 32.82 | 34.05 | 35.28 |
| % Ch | 3.8 | 1.4 | 2.5 | 3.9 | 4.3 | 4.2 | 3.8 | 3.6 |
| State and Local Government | 15.22 | 15.44 | 15.67 | 15.93 | 16.25 | 16.47 | 16.83 | 17.22 |
| % Ch | 2.9 | 1.4 | 1.5 | 1.6 | 2.0 | 1.4 | 2.2 | 2.3 |
| Federal Government | 3.08 | 2.97 | 2.97 | 2.92 | 2.87 | 2.83 | 2.77 | 2.68 |
| % Ch | 3.3 | -3.8 | 0.1 | -1.8 | -1.5 | -1.5 | -2.1 | -3.0 |

TABLE 2.2
**U.S. Nonagricultural Employment by Industry**
Forecast 1995 to 1997

| | 1992:1 | 1992:2 | 1992:3 | 1992:4 | 1993:1 | 1993:2 | 1993:3 | 1993:4 |
|---|---|---|---|---|---|---|---|---|
| Wage and Salary Employment | 108.09 | 108.45 | 108.72 | 109.13 | 109.71 | 110.35 | 111.02 | 111.82 |
| % Ch | -0.2 | 1.3 | 1.0 | 1.5 | 2.2 | 2.4 | 2.4 | 2.9 |
| Manufacturing | 18.12 | 18.14 | 18.10 | 18.06 | 18.10 | 18.06 | 18.05 | 18.10 |
| % Ch | -3.4 | 0.3 | -0.7 | -0.9 | 0.8 | -0.8 | -0.3 | 1.1 |
| Nondurable Manufacturing | 7.81 | 7.83 | 7.84 | 7.83 | 7.86 | 7.86 | 7.86 | 7.85 |
| % Ch | -1.3 | 0.9 | 0.4 | -0.4 | 1.3 | 0.3 | -0.3 | -0.4 |
| Food and Kindred Products | 1.65 | 1.66 | 1.67 | 1.67 | 1.68 | 1.68 | 1.68 | 1.68 |
| % Ch | -2.1 | 2.1 | 1.1 | -0.2 | 2.6 | -0.1 | 0.8 | 1.0 |
| Pulp and Paper | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 |
| % Ch | -0.6 | 2.2 | 1.6 | 0.4 | -0.4 | 0.4 | -1.0 | -0.8 |
| Apparel | 1.01 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 0.99 | 0.97 |
| % Ch | -2.0 | -0.7 | -1.8 | -3.0 | 1.1 | -2.1 | -4.0 | -4.8 |
| Printing | 1.51 | 1.51 | 1.51 | 1.51 | 1.51 | 1.52 | 1.52 | 1.52 |
| % Ch | -3.1 | -0.1 | 0.2 | 0.2 | 0.7 | 1.4 | 1.1 | 0.7 |
| Chemicals | 1.08 | 1.09 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| % Ch | 1.2 | 0.7 | -0.4 | 0.2 | -0.4 | -0.6 | -0.4 | -1.8 |
| Other Nondurables | 1.87 | 1.88 | 1.88 | 1.88 | 1.89 | 1.90 | 1.90 | 1.90 |
| % Ch | -0.4 | 1.0 | 1.2 | -0.3 | 2.3 | 1.5 | -0.1 | 0.8 |
| Durable Manufacturing | 10.31 | 10.31 | 10.27 | 10.23 | 10.24 | 10.20 | 10.19 | 10.25 |
| % Ch | -5.0 | -0.1 | -1.6 | -1.3 | 0.5 | -1.6 | -0.4 | 2.2 |
| Lumber and Wood | 0.67 | 0.68 | 0.68 | 0.69 | 0.70 | 0.70 | 0.71 | 0.73 |
| % Ch | -0.8 | 5.1 | 2.6 | 5.8 | 4.7 | 1.5 | 4.8 | 8.5 |
| Furniture | 0.47 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.49 | 0.49 |
| % Ch | -1.1 | 4.0 | 1.7 | -0.3 | 3.1 | 2.2 | 0.8 | 3.6 |
| Stone-Clay-Glass | 0.51 | 0.51 | 0.51 | 0.51 | 0.52 | 0.52 | 0.52 | 0.52 |
| % Ch | -4.8 | 2.4 | 0.3 | -0.3 | 1.3 | -0.5 | 1.3 | 3.1 |
| Primary Metals | 0.70 | 0.70 | 0.69 | 0.69 | 0.69 | 0.68 | 0.68 | 0.69 |
| % Ch | -5.2 | -1.7 | -2.7 | -3.0 | -1.2 | -1.7 | -1.0 | 2.6 |
| Fabricated Metals | 1.33 | 1.33 | 1.33 | 1.33 | 1.33 | 1.34 | 1.34 | 1.35 |
| % Ch | -5.2 | 1.1 | -0.3 | -0.8 | 2.1 | 0.1 | 0.5 | 3.6 |
| Nonelectrical Machinery | 1.93 | 1.93 | 1.93 | 1.93 | 1.93 | 1.93 | 1.93 | 1.94 |
| % Ch | -5.0 | 0.1 | -0.6 | -0.5 | 0.0 | 0.1 | 0.4 | 3.0 |
| Electrical Machinery | 1.54 | 1.53 | 1.52 | 1.52 | 1.52 | 1.52 | 1.52 | 1.53 |
| % Ch | -5.6 | -3.0 | -2.2 | -0.6 | 1.4 | -0.5 | 0.1 | 2.7 |
| Transportation Equipment | 1.85 | 1.85 | 1.82 | 1.80 | 1.79 | 1.76 | 1.74 | 1.74 |
| % Ch | -7.1 | -0.4 | -5.6 | -4.9 | -1.7 | -7.7 | -3.2 | -0.8 |
| Instruments | 0.94 | 0.93 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 |
| % Ch | -6.0 | -3.9 | -2.6 | -4.1 | -2.7 | -4.2 | -4.4 | -3.4 |
| Other Durables | 0.36 | 0.37 | 0.37 | 0.37 | 0.37 | 0.38 | 0.38 | 0.38 |
| % Ch | -1.1 | 3.3 | 2.6 | 1.5 | 3.6 | 4.3 | 1.1 | 2.8 |
| Nonmanufacturing | 89.97 | 90.31 | 90.62 | 91.06 | 91.61 | 92.29 | 92.97 | 93.72 |
| % Ch | 0.4 | 1.5 | 1.4 | 2.0 | 2.4 | 3.0 | 3.0 | 3.3 |
| Mining | 0.65 | 0.64 | 0.63 | 0.62 | 0.62 | 0.61 | 0.60 | 0.61 |
| % Ch | -7.6 | -6.4 | -8.3 | -2.5 | -2.8 | -3.4 | -6.0 | 2.0 |
| Construction | 4.49 | 4.49 | 4.48 | 4.51 | 4.56 | 4.63 | 4.69 | 4.78 |
| % Ch | -3.7 | -0.7 | -0.5 | 2.4 | 4.8 | 5.9 | 6.1 | 7.4 |
| Trans., Comm. and Utilities | 5.72 | 5.71 | 5.72 | 5.73 | 5.78 | 5.81 | 5.84 | 5.89 |
| % Ch | -1.9 | -0.3 | 0.3 | 1.1 | 3.1 | 2.2 | 2.5 | 3.0 |
| Wholesale Trade | 6.04 | 6.02 | 5.97 | 5.96 | 5.95 | 5.97 | 5.99 | 6.02 |
| % Ch | -1.4 | -1.7 | -2.7 | -1.0 | -0.6 | 0.9 | 1.6 | 2.3 |
| Retail Trade | 19.25 | 19.35 | 19.37 | 19.46 | 19.55 | 19.70 | 19.84 | 20.00 |
| % Ch | 0.3 | 2.1 | 0.5 | 1.8 | 1.8 | 3.2 | 2.9 | 3.2 |
| Finance-Insurance-Real Estate | 6.58 | 6.59 | 6.60 | 6.64 | 6.67 | 6.72 | 6.78 | 6.86 |
| % Ch | -1.1 | 0.6 | 0.5 | 2.1 | 2.2 | 2.8 | 3.9 | 4.4 |
| Services | 28.69 | 28.91 | 29.16 | 29.44 | 29.74 | 30.06 | 30.34 | 30.63 |
| % Ch | 1.8 | 3.0 | 3.5 | 4.0 | 4.1 | 4.3 | 3.8 | 3.9 |
| State and Local Government | 15.57 | 15.63 | 15.72 | 15.76 | 15.81 | 15.89 | 15.97 | 16.04 |
| % Ch | 1.9 | 1.7 | 2.4 | 0.9 | 1.3 | 1.8 | 2.2 | 1.7 |
| Federal Government | 2.98 | 2.98 | 2.97 | 2.95 | 2.94 | 2.92 | 2.91 | 2.90 |
| % Ch | 0.2 | 0.4 | -2.0 | -2.8 | -1.2 | -2.8 | -1.5 | -0.7 |

TABLE 2.2
**U.S. Nonagricultural Employment by Industry**
Forecast 1995 to 1997

| | 1994:1 | 1994:2 | 1994:3 | 1994:4 | 1995:1 | 1995:2 | 1995:3 | 1995:4 |
|---|---|---|---|---|---|---|---|---|
| Wage and Salary Employment | 112.65 | 113.65 | 114.48 | 115.33 | 116.08 | 116.37 | 116.79 | 117.28 |
| % Ch | 3.0 | 3.6 | 3.0 | 3.0 | 2.6 | 1.0 | 1.4 | 1.7 |
| Manufacturing | 18.18 | 18.27 | 18.33 | 18.44 | 18.52 | 18.46 | 18.34 | 18.26 |
| % Ch | 1.9 | 1.9 | 1.5 | 2.3 | 1.8 | -1.1 | -2.6 | -1.7 |
| Nondurable Manufacturing | 7.85 | 7.87 | 7.88 | 7.89 | 7.90 | 7.85 | 7.77 | 7.74 |
| % Ch | 0.3 | 0.7 | 0.4 | 0.7 | 0.5 | -2.5 | -4.1 | -1.3 |
| Food and Kindred Products | 1.68 | 1.68 | 1.68 | 1.68 | 1.69 | 1.69 | 1.68 | 1.68 |
| % Ch | -1.1 | 0.0 | -0.2 | 0.6 | 2.0 | 0.0 | -2.1 | 0.0 |
| Pulp and Paper | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.68 |
| % Ch | 0.8 | -0.2 | -0.2 | 0.8 | 0.0 | -1.0 | -2.5 | -1.3 |
| Apparel | 0.97 | 0.97 | 0.97 | 0.96 | 0.95 | 0.93 | 0.91 | 0.90 |
| % Ch | -1.6 | 0.8 | -0.5 | -2.6 | -5.3 | -8.4 | -10.5 | -1.0 |
| Printing | 1.53 | 1.54 | 1.55 | 1.55 | 1.56 | 1.56 | 1.55 | 1.55 |
| % Ch | 2.0 | 2.0 | 2.2 | 1.6 | 1.9 | -0.5 | -1.1 | -1.2 |
| Chemicals | 1.07 | 1.06 | 1.06 | 1.05 | 1.05 | 1.05 | 1.04 | 1.04 |
| % Ch | -2.9 | -2.1 | -1.7 | -1.3 | -0.1 | -2.3 | -2.2 | 0.5 |
| Other Nondurables | 1.92 | 1.93 | 1.93 | 1.95 | 1.95 | 1.93 | 1.90 | 1.88 |
| % Ch | 3.0 | 2.3 | 1.3 | 2.9 | 1.4 | -3.9 | -6.5 | -3.6 |
| Durable Manufacturing | 10.33 | 10.40 | 10.46 | 10.55 | 10.62 | 10.61 | 10.57 | 10.52 |
| % Ch | 3.1 | 2.8 | 2.3 | 3.5 | 2.7 | -0.1 | -1.4 | -2.0 |
| Lumber and Wood | 0.74 | 0.75 | 0.76 | 0.76 | 0.77 | 0.76 | 0.75 | 0.76 |
| % Ch | 8.1 | 5.1 | 4.3 | 4.1 | 1.2 | -4.9 | -3.0 | 3.0 |
| Furniture | 0.50 | 0.50 | 0.50 | 0.51 | 0.51 | 0.50 | 0.49 | 0.50 |
| % Ch | 4.4 | 3.0 | 3.0 | 1.9 | 1.9 | -5.6 | -6.0 | 1.3 |
| Stone-Clay-Glass | 0.53 | 0.53 | 0.53 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 |
| % Ch | 3.6 | 4.9 | 1.8 | 3.5 | 4.5 | -0.7 | -3.4 | -1.1 |
| Primary Metals | 0.69 | 0.69 | 0.70 | 0.71 | 0.72 | 0.72 | 0.71 | 0.70 |
| % Ch | 3.4 | 1.4 | 4.7 | 6.2 | 3.2 | 0.2 | -3.9 | -4.0 |
| Fabricated Metals | 1.36 | 1.38 | 1.39 | 1.41 | 1.43 | 1.44 | 1.43 | 1.42 |
| % Ch | 4.3 | 4.9 | 4.4 | 5.4 | 6.2 | 1.0 | -1.8 | -1.8 |
| Nonelectrical Machinery | 1.96 | 1.98 | 1.99 | 2.01 | 2.02 | 2.04 | 2.05 | 2.05 |
| % Ch | 4.0 | 4.2 | 1.6 | 3.0 | 3.8 | 2.7 | 2.0 | -0.2 |
| Electrical Machinery | 1.55 | 1.56 | 1.58 | 1.60 | 1.61 | 1.62 | 1.63 | 1.63 |
| % Ch | 3.2 | 4.9 | 4.0 | 4.3 | 4.1 | 1.9 | 1.4 | 0.5 |
| Transportation Equipment | 1.74 | 1.74 | 1.75 | 1.76 | 1.77 | 1.76 | 1.74 | 1.71 |
| % Ch | 1.3 | -0.2 | 0.9 | 3.8 | 0.6 | -1.3 | -3.7 | -7.8 |
| Instruments | 0.88 | 0.87 | 0.86 | 0.85 | 0.85 | 0.85 | 0.84 | 0.84 |
| % Ch | -3.3 | -3.9 | -3.6 | -2.2 | -2.3 | -1.3 | -1.4 | -3.1 |
| Other Durables | 0.39 | 0.39 | 0.39 | 0.39 | 0.40 | 0.39 | 0.39 | 0.39 |
| % Ch | 4.3 | 3.5 | 3.1 | 2.7 | 1.4 | -2.3 | -3.4 | -4.8 |
| Nonmanufacturing | 94.47 | 95.38 | 96.15 | 96.89 | 97.56 | 97.91 | 98.44 | 99.01 |
| % Ch | 3.3 | 3.9 | 3.3 | 3.1 | 2.8 | 1.4 | 2.2 | 2.3 |
| Mining | 0.61 | 0.60 | 0.60 | 0.59 | 0.59 | 0.58 | 0.57 | 0.57 |
| % Ch | 2.0 | -4.9 | -2.9 | -2.7 | -2.7 | -4.5 | -4.9 | -3.5 |
| Construction | 4.86 | 4.99 | 5.05 | 5.13 | 5.22 | 5.22 | 5.23 | 5.28 |
| % Ch | 6.7 | 11.0 | 5.1 | 6.9 | 7.3 | -0.2 | 1.1 | 3.3 |
| Trans., Comm. and Utilities | 5.93 | 5.97 | 6.04 | 6.09 | 6.15 | 6.18 | 6.21 | 6.24 |
| % Ch | 2.9 | 2.7 | 4.8 | 3.6 | 4.1 | 2.0 | 1.6 | 1.9 |
| Wholesale Trade | 6.07 | 6.12 | 6.16 | 6.21 | 6.27 | 6.31 | 6.34 | 6.37 |
| % Ch | 3.3 | 3.2 | 2.8 | 3.3 | 3.9 | 2.3 | 2.0 | 1.9 |
| Retail Trade | 20.19 | 20.37 | 20.51 | 20.68 | 20.77 | 20.77 | 20.86 | 20.96 |
| % Ch | 3.8 | 3.6 | 2.8 | 3.4 | 1.8 | -0.0 | 1.7 | 2.0 |
| Finance-Insurance-Real Estate | 6.91 | 6.94 | 6.95 | 6.93 | 6.93 | 6.93 | 6.95 | 6.96 |
| % Ch | 3.3 | 1.6 | 0.4 | -0.7 | -0.2 | -0.3 | 1.2 | 0.8 |
| Services | 30.91 | 31.32 | 31.69 | 32.02 | 32.39 | 32.65 | 32.96 | 33.27 |
| % Ch | 3.7 | 5.4 | 4.8 | 4.3 | 4.7 | 3.4 | 3.9 | 3.7 |
| State and Local Government | 16.11 | 16.21 | 16.30 | 16.37 | 16.40 | 16.43 | 16.49 | 16.56 |
| % Ch | 1.7 | 2.6 | 2.3 | 1.7 | 0.7 | 0.6 | 1.5 | 1.6 |
| Federal Government | 2.89 | 2.87 | 2.86 | 2.86 | 2.83 | 2.83 | 2.83 | 2.82 |
| % Ch | -1.4 | -2.4 | -1.5 | -1.1 | -3.1 | -0.1 | -0.4 | -1.8 |

TABLE 2.2
**U.S. Nonagricultural Employment by Industry**
Forecast 1995 to 1997

| | 1996:1 | 1996:2 | 1996:3 | 1996:4 | 1997:1 | 1997:2 | 1997:3 | 1997:4 |
|---|---|---|---|---|---|---|---|---|
| Wage and Salary Employment | 117.97 | 118.61 | 119.12 | 119.59 | 120.02 | 120.46 | 120.92 | 121.40 |
| % Ch | 2.4 | 2.2 | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 |
| Manufacturing | 18.25 | 18.26 | 18.22 | 18.18 | 18.12 | 18.05 | 18.02 | 17.99 |
| % Ch | -0.4 | 0.4 | -0.9 | -1.0 | -1.2 | -1.5 | -0.8 | -0.5 |
| Nondurable Manufacturing | 7.75 | 7.79 | 7.80 | 7.80 | 7.80 | 7.78 | 7.78 | 7.78 |
| % Ch | 0.5 | 1.7 | 0.9 | 0.1 | -0.4 | -0.6 | -0.3 | 0.1 |
| Food and Kindred Products | 1.69 | 1.69 | 1.69 | 1.69 | 1.69 | 1.69 | 1.69 | 1.68 |
| % Ch | 1.1 | 0.3 | 0.2 | 0.1 | 0.2 | -0.4 | -0.4 | -0.2 |
| Pulp and Paper | 0.68 | 0.69 | 0.69 | 0.69 | 0.68 | 0.68 | 0.68 | 0.68 |
| % Ch | 0.2 | 2.4 | -0.4 | -0.7 | -1.0 | -0.9 | -0.6 | -0.0 |
| Apparel | 0.91 | 0.91 | 0.92 | 0.91 | 0.91 | 0.91 | 0.90 | 0.90 |
| % Ch | 2.3 | 3.0 | 0.5 | -1.3 | -1.6 | -1.2 | -1.1 | 0.4 |
| Printing | 1.55 | 1.55 | 1.56 | 1.57 | 1.57 | 1.58 | 1.58 | 1.58 |
| % Ch | 0.2 | 1.3 | 1.8 | 1.8 | 1.4 | 1.0 | 0.7 | 0.4 |
| Chemicals | 1.05 | 1.06 | 1.06 | 1.06 | 1.05 | 1.05 | 1.05 | 1.05 |
| % Ch | 1.9 | 4.6 | 0.3 | -1.2 | -1.4 | -0.7 | 0.1 | 0.6 |
| Other Nondurables | 1.88 | 1.88 | 1.89 | 1.89 | 1.88 | 1.88 | 1.87 | 1.87 |
| % Ch | -1.2 | 0.6 | 1.6 | 0.3 | -1.0 | -1.7 | -0.9 | -0.4 |
| Durable Manufacturing | 10.49 | 10.48 | 10.42 | 10.38 | 10.33 | 10.27 | 10.24 | 10.21 |
| % Ch | -1.0 | -0.6 | -2.2 | -1.7 | -1.9 | -2.2 | -1.2 | -1.0 |
| Lumber and Wood | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.74 | 0.74 | 0.75 |
| % Ch | -1.4 | -0.6 | -0.9 | -1.0 | -1.2 | -1.2 | -0.2 | 0.8 |
| Furniture | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |
| % Ch | 1.4 | 2.5 | 0.5 | 1.6 | 0.9 | 0.2 | -0.2 | -0.5 |
| Stone-Clay-Glass | 0.54 | 0.54 | 0.54 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 |
| % Ch | 0.3 | -0.8 | -0.6 | -1.3 | -2.0 | -1.7 | -1.1 | -0.8 |
| Primary Metals | 0.70 | 0.70 | 0.70 | 0.70 | 0.69 | 0.69 | 0.68 | 0.68 |
| % Ch | -1.8 | 1.7 | -2.7 | -0.0 | -2.7 | -4.7 | -2.4 | -1.4 |
| Fabricated Metals | 1.42 | 1.43 | 1.43 | 1.43 | 1.42 | 1.42 | 1.42 | 1.42 |
| % Ch | -0.3 | 1.7 | 0.5 | -0.6 | -1.4 | -1.2 | -0.5 | 0.1 |
| Nonelectrical Machinery | 2.04 | 2.03 | 2.02 | 2.01 | 2.00 | 1.99 | 1.98 | 1.98 |
| % Ch | -1.4 | -1.1 | -2.3 | -2.3 | -1.9 | -2.0 | -1.3 | -1.0 |
| Electrical Machinery | 1.63 | 1.63 | 1.62 | 1.62 | 1.61 | 1.61 | 1.61 | 1.61 |
| % Ch | 0.3 | 1.6 | -2.4 | -1.6 | -1.5 | -0.5 | -0.2 | -0.3 |
| Transportation Equipment | 1.69 | 1.67 | 1.63 | 1.61 | 1.59 | 1.56 | 1.55 | 1.54 |
| % Ch | -3.5 | -6.2 | -7.6 | -6.0 | -4.5 | -6.4 | -3.0 | -2.7 |
| Instruments | 0.83 | 0.83 | 0.84 | 0.84 | 0.83 | 0.83 | 0.82 | 0.82 |
| % Ch | -0.8 | -0.2 | 0.4 | -0.0 | -1.2 | -2.2 | -2.2 | -2.9 |
| Other Durables | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 |
| % Ch | -0.1 | 0.8 | 1.7 | 2.0 | 1.7 | 1.2 | 1.3 | 0.8 |
| Nonmanufacturing | 99.73 | 100.35 | 100.90 | 101.41 | 101.90 | 102.41 | 102.90 | 103.41 |
| % Ch | 2.9 | 2.5 | 2.2 | 2.1 | 1.9 | 2.0 | 2.0 | 2.0 |
| Mining | 0.57 | 0.57 | 0.57 | 0.56 | 0.56 | 0.56 | 0.56 | 0.55 |
| % Ch | -1.6 | -0.9 | -0.7 | -1.1 | -1.7 | -1.8 | -2.3 | -2.0 |
| Construction | 5.31 | 5.33 | 5.33 | 5.31 | 5.29 | 5.27 | 5.26 | 5.26 |
| % Ch | 2.9 | 1.3 | -0.3 | -1.0 | -1.6 | -1.5 | -1.3 | 0.0 |
| Trans., Comm. and Utilities | 6.26 | 6.28 | 6.30 | 6.31 | 6.33 | 6.35 | 6.36 | 6.37 |
| % Ch | 1.7 | 1.3 | 1.0 | 0.9 | 0.9 | 1.0 | 0.9 | 0.8 |
| Wholesale Trade | 6.41 | 6.43 | 6.45 | 6.47 | 6.50 | 6.52 | 6.54 | 6.57 |
| % Ch | 2.8 | 1.4 | 1.1 | 1.3 | 1.4 | 1.4 | 1.6 | 1.6 |
| Retail Trade | 21.12 | 21.25 | 21.36 | 21.45 | 21.56 | 21.67 | 21.77 | 21.86 |
| % Ch | 2.9 | 2.5 | 2.0 | 1.8 | 2.1 | 1.9 | 1.8 | 1.7 |
| Finance-Insurance-Real Estate | 7.00 | 7.03 | 7.04 | 7.05 | 7.04 | 7.04 | 7.04 | 7.04 |
| % Ch | 2.5 | 1.4 | 0.8 | 0.3 | -0.3 | -0.3 | 0.2 | 0.2 |
| Services | 33.59 | 33.90 | 34.21 | 34.52 | 34.82 | 35.14 | 35.44 | 35.73 |
| % Ch | 3.9 | 3.8 | 3.7 | 3.7 | 3.5 | 3.7 | 3.5 | 3.4 |
| State and Local Government | 16.66 | 16.78 | 16.89 | 16.99 | 17.08 | 17.18 | 17.27 | 17.36 |
| % Ch | 2.6 | 2.8 | 2.6 | 2.5 | 2.3 | 2.2 | 2.1 | 2.3 |
| Federal Government | 2.80 | 2.78 | 2.76 | 2.73 | 2.71 | 2.69 | 2.68 | 2.65 |
| % Ch | -2.2 | -2.9 | -2.9 | -3.7 | -2.9 | -3.0 | -2.4 | -3.2 |

TABLE 2.3
**Washington Nonagricultural Employment by Industry**
Forecast 1995 to 1997

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Wage and Salary Employment | 2142.4 | 2177.4 | 2221.9 | 2251.7 | 2307.5 | 2363.0 | 2426.8 | 2494.0 |
| % Ch | 4.7 | 1.6 | 2.0 | 1.3 | 2.5 | 2.4 | 2.7 | 2.8 |
| Manufacturing | 369.4 | 351.9 | 347.2 | 340.8 | 337.1 | 333.7 | 335.1 | 338.8 |
| % Ch | 2.2 | -4.7 | -1.3 | -1.8 | -1.1 | -1.0 | 0.4 | 1.1 |
| Nondurable Manufacturing | 108.4 | 100.1 | 101.6 | 103.4 | 106.7 | 108.3 | 109.2 | 111.3 |
| % Ch | 4.9 | -7.7 | 1.4 | 1.8 | 3.2 | 1.5 | 0.8 | 1.9 |
| Food and Kindred Products | 37.6 | 37.6 | 38.0 | 39.0 | 40.5 | 41.1 | 41.3 | 42.2 |
| % Ch | 6.3 | -0.2 | 1.2 | 2.7 | 3.7 | 1.4 | 0.6 | 2.0 |
| Pulp and Paper | 18.1 | 17.9 | 17.7 | 17.2 | 17.2 | 17.4 | 17.4 | 17.4 |
| % Ch | 0.8 | -1.1 | -1.1 | -2.8 | -0.2 | 1.5 | -0.3 | 0.4 |
| Apparel | 7.9 | 8.0 | 8.2 | 8.8 | 9.4 | 9.4 | 9.4 | 9.4 |
| % Ch | 2.3 | 0.3 | 3.0 | 7.4 | 7.1 | -0.1 | -0.3 | 0.0 |
| Printing | 22.5 | 22.5 | 22.7 | 23.0 | 23.6 | 24.3 | 24.8 | 25.5 |
| % Ch | 4.0 | -0.3 | 1.1 | 1.4 | 2.6 | 2.7 | 2.2 | 2.9 |
| Chemicals | 13.2 | 5.2 | 5.2 | 5.4 | 5.7 | 5.7 | 5.6 | 5.7 |
| % Ch | 8.3 | -60.7 | 0.5 | 3.2 | 6.2 | -1.2 | -1.2 | 1.4 |
| Other Nondurables | 9.0 | 9.1 | 9.7 | 9.9 | 10.3 | 10.5 | 10.7 | 11.1 |
| % Ch | 7.2 | 0.6 | 7.2 | 2.2 | 3.7 | 2.0 | 2.3 | 3.5 |
| Durable Manufacturing | 260.9 | 251.8 | 245.6 | 237.4 | 230.4 | 225.4 | 225.9 | 227.5 |
| % Ch | 1.1 | -3.5 | -2.4 | -3.4 | -2.9 | -2.2 | 0.2 | 0.7 |
| Lumber and Wood | 39.9 | 36.4 | 36.5 | 35.9 | 36.5 | 36.2 | 35.7 | 35.5 |
| % Ch | -3.0 | -8.9 | 0.3 | -1.8 | 1.9 | -1.0 | -1.3 | -0.6 |
| Furniture | 4.1 | 3.8 | 3.7 | 3.6 | 3.7 | 3.7 | 3.7 | 3.8 |
| % Ch | 3.8 | -6.7 | -2.5 | -4.5 | 3.7 | -0.5 | 0.8 | 2.3 |
| Stone-Clay-Glass | 7.9 | 7.7 | 8.1 | 8.4 | 8.7 | 9.1 | 9.2 | 9.3 |
| % Ch | 5.8 | -2.5 | 5.4 | 3.5 | 3.7 | 4.1 | 1.1 | 0.5 |
| Primary Metals | 13.0 | 12.3 | 11.7 | 11.2 | 10.8 | 11.1 | 11.1 | 11.1 |
| % Ch | 0.3 | -5.6 | -4.9 | -3.9 | -3.6 | 2.6 | 0.3 | -0.1 |
| Fabricated Metals | 12.2 | 11.9 | 11.2 | 11.5 | 12.5 | 13.1 | 13.2 | 13.4 |
| % Ch | 3.6 | -2.8 | -5.6 | 2.7 | 8.5 | 5.1 | 0.6 | 1.7 |
| Nonelectrical Machinery | 20.5 | 19.9 | 19.5 | 20.2 | 20.8 | 22.8 | 23.6 | 23.9 |
| % Ch | 6.3 | -3.1 | -2.1 | 3.9 | 2.9 | 9.7 | 3.5 | 1.1 |
| Electrical Machinery | 11.4 | 11.0 | 10.6 | 11.2 | 12.1 | 13.7 | 14.7 | 16.0 |
| % Ch | 0.1 | -3.7 | -3.2 | 5.3 | 8.1 | 13.1 | 7.4 | 9.0 |
| Aerospace | 116.2 | 115.6 | 111.9 | 102.7 | 91.8 | 81.1 | 80.0 | 79.2 |
| % Ch | 2.2 | -0.6 | -3.2 | -8.2 | -10.6 | -11.7 | -1.4 | -0.9 |
| Other Trans. Equip. | 14.8 | 12.8 | 11.5 | 12.0 | 13.1 | 14.3 | 14.2 | 14.5 |
| % Ch | -3.3 | -13.7 | -9.9 | 4.8 | 8.9 | 8.7 | -0.7 | 2.4 |
| Instruments | 14.7 | 13.8 | 14.1 | 13.5 | 13.0 | 12.9 | 12.8 | 12.9 |
| % Ch | -3.4 | -5.6 | 1.8 | -4.3 | -3.6 | -0.9 | -0.7 | 1.1 |
| Other Durables | 6.1 | 6.7 | 6.8 | 7.1 | 7.2 | 7.4 | 7.6 | 7.8 |
| % Ch | 4.8 | 8.4 | 2.4 | 4.4 | 1.4 | 2.6 | 2.8 | 2.4 |
| Nonmanufacturing | 1773.0 | 1825.5 | 1874.7 | 1910.9 | 1970.4 | 2029.2 | 2091.7 | 2155.2 |
| % Ch | 5.2 | 3.0 | 2.7 | 1.9 | 3.1 | 3.0 | 3.1 | 3.0 |
| Mining | 3.7 | 3.7 | 3.4 | 3.2 | 3.4 | 3.4 | 3.5 | 3.6 |
| % Ch | 5.1 | -2.2 | -7.5 | -5.3 | 5.0 | 2.1 | 2.5 | 1.7 |
| Construction | 117.3 | 118.2 | 119.2 | 119.1 | 123.5 | 124.0 | 125.3 | 126.7 |
| % Ch | 9.9 | 0.8 | 0.9 | -0.1 | 3.7 | 0.4 | 1.0 | 1.1 |
| Trans., Comm. and Utilities | 113.0 | 111.9 | 113.6 | 114.2 | 116.7 | 120.9 | 123.8 | 126.3 |
| % Ch | 4.4 | -1.0 | 1.6 | 0.5 | 2.2 | 3.6 | 2.5 | 2.0 |
| Wholesale Trade | 128.5 | 130.2 | 131.5 | 133.3 | 138.5 | 144.9 | 149.1 | 152.6 |
| % Ch | 3.8 | 1.3 | 0.9 | 1.4 | 3.9 | 4.6 | 2.9 | 2.3 |
| Retail Trade | 392.9 | 397.0 | 406.3 | 413.2 | 426.9 | 441.5 | 455.3 | 469.8 |
| % Ch | 3.9 | 1.0 | 2.4 | 1.7 | 3.3 | 3.4 | 3.1 | 3.2 |
| Finance-Insurance-Real Estate | 115.5 | 116.9 | 119.3 | 121.2 | 124.6 | 122.1 | 123.2 | 125.3 |
| % Ch | 2.9 | 1.3 | 2.0 | 1.6 | 2.8 | -2.0 | 0.8 | 1.7 |
| Services | 504.3 | 536.0 | 557.8 | 576.7 | 599.1 | 628.0 | 657.5 | 686.4 |
| % Ch | 6.8 | 6.3 | 4.1 | 3.4 | 3.9 | 4.8 | 4.7 | 4.4 |
| State and Local Government | 323.9 | 338.7 | 350.2 | 357.7 | 366.2 | 375.9 | 387.7 | 399.7 |
| % Ch | 5.2 | 4.6 | 3.4 | 2.1 | 2.4 | 2.6 | 3.1 | 3.1 |
| Federal Government | 73.7 | 72.9 | 73.4 | 72.3 | 71.5 | 68.6 | 66.3 | 64.8 |
| % Ch | 2.3 | -1.1 | 0.6 | -1.4 | -1.2 | -4.0 | -3.3 | -2.3 |

TABLE 2.4
**Washington Nonagricultural Employment by Industry**
Forecast 1995 to 1997

| | 1992:1 | 1992:2 | 1992:3 | 1992:4 | 1993:1 | 1993:2 | 1993:3 | 1993:4 |
|---|---|---|---|---|---|---|---|---|
| Wage and Salary Employment | 2210.7 | 2216.8 | 2221.0 | 2239.1 | 2236.5 | 2246.4 | 2250.7 | 2273.3 |
| % Ch | 2.7 | 1.1 | 0.7 | 3.3 | -0.5 | 1.8 | 0.8 | 4.1 |
| Manufacturing | 349.2 | 348.5 | 345.9 | 345.1 | 344.4 | 342.2 | 338.5 | 337.9 |
| % Ch | -1.4 | -0.7 | -2.9 | -0.9 | -0.8 | -2.5 | -4.2 | -0.7 |
| Nondurable Manufacturing | 100.6 | 101.8 | 101.9 | 102.1 | 103.0 | 102.9 | 103.3 | 104.5 |
| % Ch | -0.9 | 5.1 | 0.2 | 0.9 | 3.5 | -0.2 | 1.3 | 4.7 |
| Food and Kindred Products | 37.2 | 38.4 | 38.3 | 38.2 | 39.0 | 38.6 | 38.8 | 39.8 |
| % Ch | -4.1 | 12.9 | -0.9 | -1.1 | 9.0 | -4.4 | 2.1 | 11.0 |
| Pulp and Paper | 17.8 | 17.7 | 17.5 | 17.6 | 17.4 | 17.1 | 17.1 | 17.1 |
| % Ch | -0.9 | -3.3 | -3.1 | 2.0 | -4.2 | -7.2 | -1.3 | 0.6 |
| Apparel | 8.1 | 8.2 | 8.3 | 8.3 | 8.6 | 8.8 | 9.0 | 8.9 |
| % Ch | 0.6 | 3.0 | 5.3 | 2.6 | 11.6 | 13.4 | 9.3 | -6.7 |
| Printing | 22.5 | 22.6 | 22.8 | 23.0 | 23.0 | 23.1 | 23.0 | 23.1 |
| % Ch | 2.5 | 2.8 | 3.6 | 2.3 | -0.0 | 2.8 | -2.2 | 1.4 |
| Chemicals | 5.2 | 5.2 | 5.2 | 5.2 | 5.1 | 5.3 | 5.5 | 5.6 |
| % Ch | -5.8 | -1.5 | 0.3 | -0.6 | -7.3 | 16.7 | 16.8 | 5.1 |
| Other Nondurables | 9.7 | 9.7 | 9.7 | 9.8 | 9.9 | 10.0 | 9.9 | 10.0 |
| % Ch | 6.1 | 2.3 | -0.9 | 3.3 | 4.0 | 3.2 | -3.6 | 6.6 |
| Durable Manufacturing | 248.6 | 246.7 | 244.1 | 243.0 | 241.4 | 239.3 | 235.3 | 233.5 |
| % Ch | -1.7 | -3.0 | -4.2 | -1.7 | -2.6 | -3.5 | -6.6 | -3.0 |
| Lumber and Wood | 36.9 | 36.6 | 36.1 | 36.5 | 36.4 | 35.7 | 35.1 | 36.2 |
| % Ch | 11.6 | -3.6 | -5.8 | 4.6 | -0.7 | -7.4 | -6.7 | 13.7 |
| Furniture | 3.8 | 3.8 | 3.6 | 3.7 | 3.6 | 3.6 | 3.5 | 3.5 |
| % Ch | -3.4 | -6.3 | -15.1 | 5.8 | -4.3 | -6.4 | -5.1 | -2.9 |
| Stone-Clay-Glass | 7.9 | 8.0 | 8.2 | 8.4 | 8.5 | 8.4 | 8.4 | 8.5 |
| % Ch | 9.6 | 3.7 | 11.0 | 11.5 | 1.4 | -1.6 | -2.3 | 3.4 |
| Primary Metals | 11.9 | 11.7 | 11.7 | 11.4 | 11.5 | 11.4 | 11.0 | 11.0 |
| % Ch | -4.0 | -4.9 | 0.2 | -10.0 | 1.8 | -2.9 | -11.4 | -2.0 |
| Fabricated Metals | 11.3 | 11.2 | 11.2 | 11.1 | 11.4 | 11.5 | 11.3 | 11.9 |
| % Ch | -6.6 | -2.2 | -2.7 | -0.6 | 9.9 | 1.5 | -5.0 | 22.6 |
| Nonelectrical Machinery | 19.1 | 19.3 | 19.5 | 19.9 | 20.0 | 20.2 | 20.3 | 20.4 |
| % Ch | -5.7 | 4.8 | 2.9 | 9.2 | 1.8 | 4.1 | 1.6 | 1.8 |
| Electrical Machinery | 10.5 | 10.5 | 10.7 | 10.8 | 11.0 | 11.2 | 11.2 | 11.4 |
| % Ch | -6.9 | 1.1 | 4.6 | 5.3 | 7.3 | 7.1 | 0.6 | 6.7 |
| Aerospace | 114.6 | 113.0 | 110.8 | 109.1 | 106.9 | 104.6 | 101.4 | 98.0 |
| % Ch | -3.1 | -5.6 | -7.6 | -6.0 | -7.5 | -8.5 | -11.7 | -12.9 |
| Other Trans. Equip. | 11.7 | 11.7 | 11.4 | 11.2 | 11.6 | 12.0 | 12.3 | 12.3 |
| % Ch | -19.0 | -0.3 | -8.3 | -7.7 | 16.2 | 13.4 | 8.7 | 1.7 |
| Instruments | 14.2 | 14.2 | 14.1 | 14.0 | 13.5 | 13.6 | 13.6 | 13.3 |
| % Ch | 3.7 | -0.5 | -3.1 | -2.8 | -12.1 | 1.8 | -0.1 | -7.5 |
| Other Durables | 6.6 | 6.7 | 6.9 | 7.0 | 7.0 | 7.2 | 7.2 | 7.1 |
| % Ch | -0.4 | 5.6 | 13.1 | 2.6 | 0.3 | 12.5 | 1.1 | -7.6 |
| Nonmanufacturing | 1861.6 | 1868.3 | 1875.0 | 1894.0 | 1892.1 | 1904.2 | 1912.1 | 1935.4 |
| % Ch | 3.5 | 1.4 | 1.4 | 4.1 | -0.4 | 2.6 | 1.7 | 4.9 |
| Mining | 3.5 | 3.4 | 3.3 | 3.3 | 3.1 | 3.2 | 3.2 | 3.3 |
| % Ch | -2.2 | -17.8 | -2.5 | -3.1 | -21.7 | 11.0 | 4.5 | 4.8 |
| Construction | 118.9 | 118.8 | 118.5 | 120.7 | 118.2 | 116.6 | 118.6 | 122.9 |
| % Ch | -0.3 | -0.4 | -1.1 | 7.9 | -8.0 | -5.4 | 7.2 | 15.2 |
| Trans., Comm. and Utilities | 113.7 | 114.0 | 113.2 | 113.8 | 114.0 | 114.8 | 114.0 | 113.9 |
| % Ch | 4.2 | 1.0 | -2.8 | 2.3 | 0.6 | 2.9 | -2.7 | -0.1 |
| Wholesale Trade | 131.7 | 131.6 | 131.5 | 131.0 | 132.0 | 132.3 | 133.2 | 135.7 |
| % Ch | 3.1 | -0.5 | -0.4 | -1.3 | 3.0 | 0.9 | 2.9 | 7.8 |
| Retail Trade | 404.2 | 405.7 | 406.6 | 408.7 | 408.8 | 412.3 | 413.9 | 417.9 |
| % Ch | 4.3 | 1.4 | 1.0 | 2.1 | 0.0 | 3.5 | 1.6 | 3.9 |
| Finance-Insurance-Real Estate | 118.9 | 119.1 | 119.3 | 120.0 | 119.3 | 120.3 | 121.6 | 123.7 |
| % Ch | 3.8 | 0.9 | 0.5 | 2.4 | -2.2 | 3.4 | 4.4 | 7.0 |
| Services | 549.4 | 553.6 | 559.6 | 568.6 | 568.7 | 575.9 | 577.8 | 584.4 |
| % Ch | 2.5 | 3.1 | 4.4 | 6.6 | 0.1 | 5.2 | 1.3 | 4.6 |
| State and Local Government | 347.9 | 349.2 | 349.6 | 354.2 | 354.3 | 356.7 | 358.1 | 361.6 |
| % Ch | 6.0 | 1.4 | 0.5 | 5.4 | 0.2 | 2.6 | 1.6 | 3.9 |
| Federal Government | 73.3 | 73.0 | 73.5 | 73.6 | 73.7 | 72.1 | 71.6 | 71.9 |
| % Ch | 0.2 | -1.5 | 2.6 | 0.6 | 0.5 | -8.3 | -2.8 | 1.6 |

TABLE 2.4
**Washington Nonagricultural Employment by Industry**
Forecast 1995 to 1997

| | 1994:1 | 1994:2 | 1994:3 | 1994:4 | 1995:1 | 1995:2 | 1995:3 | 1995:4 |
|---|---|---|---|---|---|---|---|---|
| Wage and Salary Employment | 2286.0 | 2294.9 | 2314.3 | 2335.0 | 2353.3 | 2354.0 | 2371.0 | 2373.6 |
| % Ch | 2.2 | 1.6 | 3.4 | 3.6 | 3.2 | 0.1 | 2.9 | 0.4 |
| Manufacturing | 337.0 | 336.2 | 336.7 | 338.6 | 343.4 | 339.1 | 333.3 | 319.1 |
| % Ch | -1.2 | -0.9 | 0.6 | 2.3 | 5.8 | -4.9 | -6.6 | -16.0 |
| Nondurable Manufacturing | 105.6 | 106.3 | 107.0 | 108.1 | 109.7 | 108.3 | 107.5 | 107.9 |
| % Ch | 4.2 | 2.8 | 2.8 | 4.1 | 5.8 | -4.8 | -3.0 | 1.6 |
| Food and Kindred Products | 40.3 | 40.3 | 40.6 | 40.9 | 41.8 | 41.3 | 40.5 | 40.8 |
| % Ch | 4.6 | 0.4 | 2.6 | 3.0 | 9.3 | -4.7 | -7.7 | 3.3 |
| Pulp and Paper | 17.0 | 17.2 | 17.2 | 17.3 | 17.5 | 17.4 | 17.4 | 17.4 |
| % Ch | -2.1 | 3.8 | -0.2 | 3.6 | 3.9 | -1.5 | 0.9 | -1.9 |
| Apparel | 9.1 | 9.5 | 9.6 | 9.6 | 9.6 | 9.5 | 9.3 | 9.3 |
| % Ch | 11.4 | 20.0 | 0.5 | 1.0 | -0.1 | -2.8 | -7.5 | 0.2 |
| Printing | 23.4 | 23.5 | 23.7 | 23.9 | 24.2 | 24.2 | 24.2 | 24.4 |
| % Ch | 5.5 | 2.4 | 3.0 | 4.0 | 5.5 | -1.1 | 0.3 | 3.2 |
| Chemicals | 5.6 | 5.6 | 5.7 | 6.0 | 6.0 | 5.6 | 5.5 | 5.5 |
| % Ch | -0.3 | 0.9 | 6.0 | 24.0 | -3.3 | -20.3 | -6.4 | -1.9 |
| Other Nondurables | 10.2 | 10.2 | 10.4 | 10.5 | 10.6 | 10.3 | 10.5 | 10.5 |
| % Ch | 7.2 | -1.6 | 9.3 | 2.6 | 6.9 | -11.2 | 8.1 | 0.7 |
| Durable Manufacturing | 231.4 | 229.9 | 229.7 | 230.5 | 233.7 | 230.8 | 225.9 | 211.2 |
| % Ch | -3.5 | -2.5 | -0.5 | 1.4 | 5.8 | -5.0 | -8.3 | -23.5 |
| Lumber and Wood | 37.0 | 36.2 | 36.5 | 36.5 | 37.2 | 35.8 | 35.8 | 35.9 |
| % Ch | 8.6 | -8.1 | 3.1 | -0.5 | 8.8 | -14.3 | 0.0 | 0.7 |
| Furniture | 3.6 | 3.7 | 3.7 | 3.7 | 3.7 | 3.6 | 3.7 | 3.7 |
| % Ch | 16.1 | 5.9 | 5.0 | -2.5 | 1.7 | -12.0 | 10.3 | -4.4 |
| Stone-Clay-Glass | 8.6 | 8.7 | 8.8 | 8.9 | 9.0 | 9.0 | 9.2 | 9.2 |
| % Ch | 9.6 | 1.6 | 5.4 | 2.8 | 8.2 | 0.3 | 5.6 | 1.2 |
| Primary Metals | 10.9 | 10.8 | 10.7 | 10.8 | 11.0 | 11.1 | 11.2 | 11.1 |
| % Ch | -1.3 | -4.7 | -5.0 | 5.1 | 5.5 | 4.0 | 4.7 | -2.0 |
| Fabricated Metals | 12.1 | 12.4 | 12.6 | 13.0 | 13.2 | 13.1 | 13.1 | 13.1 |
| % Ch | 6.1 | 9.9 | 7.4 | 12.9 | 6.5 | -1.3 | -1.3 | 0.6 |
| Nonelectrical Machinery | 20.4 | 20.7 | 20.8 | 21.3 | 22.0 | 22.6 | 23.1 | 23.6 |
| % Ch | 0.7 | 6.1 | 1.4 | 10.7 | 13.4 | 11.1 | 9.5 | 9.3 |
| Electrical Machinery | 11.5 | 12.0 | 12.5 | 12.4 | 13.1 | 13.6 | 14.0 | 14.0 |
| % Ch | 4.5 | 18.6 | 17.2 | -3.8 | 27.2 | 14.2 | 12.5 | 1.0 |
| Aerospace | 94.3 | 92.3 | 90.7 | 90.1 | 89.4 | 87.5 | 81.5 | 66.2 |
| % Ch | -14.3 | -8.0 | -7.0 | -2.3 | -3.4 | -8.1 | -24.8 | -56.4 |
| Other Trans. Equip. | 12.9 | 12.9 | 13.1 | 13.5 | 14.6 | 14.3 | 14.1 | 14.0 |
| % Ch | 20.2 | 1.4 | 6.9 | 11.2 | 37.2 | -7.4 | -7.1 | -1.1 |
| Instruments | 12.9 | 13.0 | 13.0 | 13.1 | 13.2 | 12.7 | 12.8 | 12.8 |
| % Ch | -10.4 | 1.8 | -1.4 | 5.2 | 2.6 | -13.3 | 2.8 | -1.3 |
| Other Durables | 7.1 | 7.2 | 7.3 | 7.2 | 7.3 | 7.4 | 7.4 | 7.5 |
| % Ch | 2.0 | 4.6 | 8.0 | -4.9 | 4.3 | 3.9 | 1.3 | 6.1 |
| Nonmanufacturing | 1949.0 | 1958.7 | 1977.6 | 1996.4 | 2009.9 | 2014.9 | 2037.6 | 2054.5 |
| % Ch | 2.9 | 2.0 | 3.9 | 3.9 | 2.7 | 1.0 | 4.6 | 3.4 |
| Mining | 3.3 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.5 | 3.5 |
| % Ch | 4.1 | 7.2 | 2.4 | 2.4 | -0.3 | 1.0 | 4.8 | 4.0 |
| Construction | 123.2 | 123.5 | 123.9 | 123.5 | 123.8 | 122.7 | 124.5 | 124.9 |
| % Ch | 0.8 | 1.0 | 1.5 | -1.5 | 1.2 | -3.5 | 5.8 | 1.3 |
| Trans., Comm. and Utilities | 114.8 | 115.4 | 117.2 | 119.4 | 119.8 | 120.0 | 121.2 | 122.4 |
| % Ch | 3.0 | 2.1 | 6.3 | 7.7 | 1.6 | 0.4 | 4.2 | 4.1 |
| Wholesale Trade | 137.0 | 137.4 | 138.6 | 141.1 | 142.6 | 143.8 | 146.1 | 147.1 |
| % Ch | 3.6 | 1.3 | 3.6 | 7.4 | 4.1 | 3.4 | 6.6 | 3.0 |
| Retail Trade | 422.3 | 424.2 | 428.7 | 432.5 | 439.6 | 437.7 | 442.1 | 446.5 |
| % Ch | 4.2 | 1.9 | 4.3 | 3.6 | 6.7 | -1.8 | 4.1 | 4.1 |
| Finance-Insurance-Real Estate | 126.2 | 125.5 | 124.0 | 122.8 | 122.7 | 121.9 | 122.0 | 121.9 |
| % Ch | 8.5 | -2.4 | -4.7 | -3.7 | -0.4 | -2.5 | 0.3 | -0.5 |
| Services | 587.4 | 593.2 | 604.9 | 610.8 | 616.3 | 621.8 | 633.0 | 641.0 |
| % Ch | 2.1 | 4.0 | 8.1 | 3.9 | 3.7 | 3.6 | 7.3 | 5.2 |
| State and Local Government | 363.4 | 364.6 | 365.5 | 371.3 | 370.9 | 375.0 | 377.6 | 380.0 |
| % Ch | 2.1 | 1.3 | 1.0 | 6.5 | -0.5 | 4.5 | 2.8 | 2.5 |
| Federal Government | 71.4 | 71.5 | 71.4 | 71.7 | 70.8 | 68.6 | 67.8 | 67.2 |
| % Ch | -2.5 | 0.2 | -0.6 | 1.9 | -5.1 | -11.4 | -5.0 | -3.0 |

TABLE 2.4
**Washington Nonagricultural Employment by Industry**
Forecast 1995 to 1997

| | 1996:1 | 1996:2 | 1996:3 | 1996:4 | 1997:1 | 1997:2 | 1997:3 | 1997:4 |
|---|---|---|---|---|---|---|---|---|
| Wage and Salary Employment | 2403.5 | 2418.5 | 2434.9 | 2450.4 | 2467.5 | 2485.0 | 2502.8 | 2520.6 |
| % Ch | 5.1 | 2.5 | 2.7 | 2.6 | 2.8 | 2.9 | 2.9 | 2.9 |
| Manufacturing | 334.3 | 334.8 | 335.4 | 335.9 | 337.0 | 338.1 | 339.4 | 340.7 |
| % Ch | 20.4 | 0.6 | 0.7 | 0.7 | 1.3 | 1.3 | 1.5 | 1.6 |
| Nondurable Manufacturing | 108.4 | 109.0 | 109.5 | 110.0 | 110.6 | 111.1 | 111.5 | 112.1 |
| % Ch | 1.8 | 2.2 | 2.0 | 1.9 | 2.0 | 1.7 | 1.7 | 1.9 |
| Food and Kindred Products | 41.1 | 41.2 | 41.4 | 41.6 | 41.9 | 42.1 | 42.2 | 42.4 |
| % Ch | 2.7 | 1.6 | 1.9 | 2.0 | 2.8 | 1.6 | 1.6 | 1.9 |
| Pulp and Paper | 17.3 | 17.4 | 17.4 | 17.4 | 17.4 | 17.4 | 17.4 | 17.5 |
| % Ch | -0.3 | 0.5 | 0.4 | 0.3 | 0.5 | 0.4 | 0.2 | 0.3 |
| Apparel | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 | 9.4 |
| % Ch | 1.8 | 1.8 | 0.7 | -0.5 | -0.4 | -0.0 | 0.1 | 0.2 |
| Printing | 24.5 | 24.7 | 24.9 | 25.1 | 25.2 | 25.4 | 25.6 | 25.8 |
| % Ch | 1.6 | 4.0 | 2.8 | 2.8 | 2.8 | 3.0 | 3.0 | 3.0 |
| Chemicals | 5.5 | 5.6 | 5.6 | 5.6 | 5.6 | 5.7 | 5.7 | 5.7 |
| % Ch | 2.2 | 3.4 | 1.6 | 1.0 | 1.0 | 1.3 | 1.7 | 2.0 |
| Other Nondurables | 10.6 | 10.7 | 10.8 | 10.9 | 11.0 | 11.1 | 11.2 | 11.2 |
| % Ch | 1.8 | 3.1 | 5.1 | 4.2 | 2.7 | 3.0 | 3.2 | 3.3 |
| Durable Manufacturing | 225.9 | 225.8 | 225.8 | 225.9 | 226.4 | 227.0 | 227.8 | 228.6 |
| % Ch | 30.9 | -0.2 | 0.1 | 0.1 | 1.0 | 1.1 | 1.4 | 1.4 |
| Lumber and Wood | 35.8 | 35.8 | 35.7 | 35.6 | 35.5 | 35.5 | 35.5 | 35.6 |
| % Ch | -0.9 | -0.4 | -0.8 | -0.9 | -1.0 | -0.8 | 0.0 | 1.0 |
| Furniture | 3.7 | 3.7 | 3.7 | 3.7 | 3.8 | 3.8 | 3.8 | 3.8 |
| % Ch | 1.6 | 1.6 | 3.5 | 1.9 | 1.8 | 2.1 | 2.6 | 2.7 |
| Stone-Clay-Glass | 9.2 | 9.2 | 9.2 | 9.2 | 9.2 | 9.2 | 9.3 | 9.3 |
| % Ch | 0.5 | -0.1 | 0.3 | 0.8 | 0.5 | 0.5 | 0.6 | 0.7 |
| Primary Metals | 11.1 | 11.1 | 11.1 | 11.1 | 11.1 | 11.1 | 11.1 | 11.1 |
| % Ch | -0.8 | -0.4 | 0.6 | 0.6 | -0.6 | -1.1 | 0.1 | 1.2 |
| Fabricated Metals | 13.1 | 13.2 | 13.3 | 13.3 | 13.4 | 13.4 | 13.5 | 13.5 |
| % Ch | 0.5 | 1.3 | 2.3 | 1.6 | 1.5 | 1.6 | 1.9 | 1.8 |
| Nonelectrical Machinery | 23.6 | 23.6 | 23.6 | 23.7 | 23.7 | 23.8 | 24.0 | 24.1 |
| % Ch | 0.3 | -0.3 | 0.1 | 0.6 | 1.2 | 1.8 | 2.1 | 2.0 |
| Electrical Machinery | 14.3 | 14.5 | 14.8 | 15.1 | 15.5 | 15.8 | 16.2 | 16.6 |
| % Ch | 7.7 | 7.3 | 8.2 | 8.8 | 9.4 | 8.6 | 9.7 | 10.4 |
| Aerospace | 80.7 | 80.2 | 79.7 | 79.2 | 79.2 | 79.2 | 79.2 | 79.2 |
| % Ch | 120.8 | -2.5 | -2.5 | -2.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other Trans. Equip. | 14.1 | 14.1 | 14.2 | 14.3 | 14.4 | 14.5 | 14.5 | 14.6 |
| % Ch | 1.0 | 0.9 | 2.3 | 2.7 | 2.7 | 2.8 | 2.1 | 1.7 |
| Instruments | 12.7 | 12.8 | 12.9 | 12.9 | 12.9 | 12.9 | 13.0 | 13.0 |
| % Ch | -2.4 | 2.3 | 2.1 | 0.4 | 1.0 | 1.0 | 1.7 | -0.9 |
| Other Durables | 7.5 | 7.6 | 7.6 | 7.7 | 7.7 | 7.8 | 7.8 | 7.9 |
| % Ch | 1.9 | 2.0 | 1.8 | 2.5 | 2.3 | 2.7 | 2.7 | 2.2 |
| Nonmanufacturing | 2069.2 | 2083.7 | 2099.5 | 2114.4 | 2130.4 | 2146.9 | 2163.5 | 2179.9 |
| % Ch | 2.9 | 2.8 | 3.1 | 2.9 | 3.1 | 3.1 | 3.1 | 3.1 |
| Mining | 3.5 | 3.5 | 3.5 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 |
| % Ch | 2.4 | 1.2 | 1.5 | 1.7 | 1.6 | 1.8 | 1.9 | 1.9 |
| Construction | 125.1 | 124.8 | 125.5 | 125.7 | 126.1 | 126.4 | 126.8 | 127.3 |
| % Ch | 0.8 | -1.1 | 2.2 | 0.9 | 1.0 | 1.2 | 1.3 | 1.6 |
| Trans., Comm. and Utilities | 123.0 | 123.5 | 124.1 | 124.7 | 125.3 | 126.0 | 126.7 | 127.3 |
| % Ch | 1.8 | 1.8 | 2.0 | 1.9 | 2.1 | 2.1 | 2.2 | 2.1 |
| Wholesale Trade | 147.8 | 148.7 | 149.6 | 150.4 | 151.3 | 152.1 | 153.0 | 154.0 |
| % Ch | 1.8 | 2.4 | 2.4 | 2.3 | 2.3 | 2.3 | 2.4 | 2.5 |
| Retail Trade | 450.1 | 453.7 | 457.2 | 460.4 | 464.1 | 467.9 | 471.8 | 475.5 |
| % Ch | 3.2 | 3.3 | 3.1 | 2.8 | 3.3 | 3.3 | 3.4 | 3.2 |
| Finance-Insurance-Real Estate | 122.5 | 122.8 | 123.4 | 123.9 | 124.5 | 125.0 | 125.5 | 126.0 |
| % Ch | 2.0 | 1.1 | 2.1 | 1.6 | 2.0 | 1.6 | 1.6 | 1.5 |
| Services | 647.4 | 654.0 | 660.8 | 667.6 | 674.8 | 682.6 | 690.3 | 697.7 |
| % Ch | 4.1 | 4.1 | 4.2 | 4.2 | 4.4 | 4.7 | 4.6 | 4.4 |
| State and Local Government | 382.9 | 386.1 | 389.3 | 392.5 | 395.4 | 398.3 | 401.0 | 404.1 |
| % Ch | 3.2 | 3.4 | 3.3 | 3.3 | 3.1 | 2.9 | 2.8 | 3.1 |
| Federal Government | 66.9 | 66.5 | 66.1 | 65.7 | 65.3 | 64.9 | 64.7 | 64.3 |
| % Ch | -1.9 | -2.4 | -2.3 | -2.8 | -2.2 | -2.2 | -1.7 | -2.3 |

TABLE 3.1

**U.S. Personal Income by Component**
Forecast 1995 to 1997

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Personal Income | 4673.8 | 4860.3 | 5154.4 | 5375.1 | 5701.7 | 6050.1 | 6343.0 | 6646.2 |
| % Ch | 6.7 | 4.0 | 6.1 | 4.3 | 6.1 | 6.1 | 4.8 | 4.8 |
| Total Wage and Salary Disbursements | 2745.0 | 2816.1 | 2974.8 | 3080.8 | 3279.0 | 3449.6 | 3621.9 | 3794.5 |
| % Ch | 6.1 | 2.6 | 5.6 | 3.6 | 6.4 | 5.2 | 5.0 | 4.8 |
| Nonwage Personal Income | 1928.8 | 2044.2 | 2179.6 | 2294.3 | 2422.8 | 2600.5 | 2721.1 | 2851.6 |
| % Ch | 7.5 | 6.0 | 6.6 | 5.3 | 5.6 | 7.3 | 4.6 | 4.8 |
| Other Labor Income | 274.3 | 299.1 | 328.7 | 355.3 | 381.0 | 406.8 | 429.4 | 460.0 |
| % Ch | 8.9 | 9.0 | 9.9 | 8.1 | 7.2 | 6.8 | 5.6 | 7.1 |
| Proprietor's Income | 363.3 | 376.2 | 418.7 | 441.6 | 473.7 | 492.9 | 506.8 | 526.4 |
| % Ch | 4.6 | 3.5 | 11.3 | 5.5 | 7.3 | 4.1 | 2.8 | 3.9 |
| Farm | 42.0 | 36.7 | 44.4 | 37.3 | 39.5 | 38.4 | 41.7 | 41.8 |
| % Ch | 4.2 | -12.6 | 21.1 | -15.9 | 5.9 | -2.7 | 8.4 | 0.3 |
| Nonfarm | 321.4 | 339.5 | 374.4 | 404.3 | 434.2 | 454.5 | 465.1 | 484.6 |
| % Ch | 4.7 | 5.6 | 10.3 | 8.0 | 7.4 | 4.7 | 2.3 | 4.2 |
| Less: Pers Cont. For Social Ins. | 224.9 | 236.2 | 248.7 | 261.3 | 281.4 | 297.0 | 312.0 | 328.6 |
| % Ch | 6.4 | 5.0 | 5.3 | 5.1 | 7.7 | 5.5 | 5.1 | 5.3 |
| Dividends/Int./Rent | 828.5 | 835.1 | 820.6 | 843.4 | 886.0 | 974.0 | 1019.0 | 1066.3 |
| % Ch | 6.1 | 0.8 | -1.7 | 2.8 | 5.1 | 9.9 | 4.6 | 4.6 |
| Transfer Payments | 687.6 | 770.1 | 860.2 | 915.4 | 963.4 | 1023.8 | 1077.9 | 1127.5 |
| % Ch | 10.0 | 12.0 | 11.7 | 6.4 | 5.2 | 6.3 | 5.3 | 4.6 |

TABLE 3.2

**U.S. Personal Income by Component**
Forecast 1995 to 1997

| | 1992:1 | 1992:2 | 1992:3 | 1992:4 | 1993:1 | 1993:2 | 1993:3 | 1993:4 |
|---|---|---|---|---|---|---|---|---|
| Personal Income | 5032.4 | 5101.9 | 5148.1 | 5335.0 | 5255.5 | 5364.5 | 5395.9 | 5484.6 |
| % Ch | 8.2 | 5.6 | 3.7 | 15.3 | -5.8 | 8.6 | 2.4 | 6.7 |
| Total Wage and Salary Disbursements | 2893.9 | 2933.4 | 2973.1 | 3098.8 | 2973.9 | 3085.1 | 3115.9 | 3148.4 |
| % Ch | 5.7 | 5.6 | 5.5 | 18.0 | -15.2 | 15.8 | 4.1 | 4.2 |
| Nonwage Personal Income | 2138.5 | 2168.5 | 2175.0 | 2236.2 | 2281.6 | 2279.4 | 2280.0 | 2336.2 |
| % Ch | 11.8 | 5.7 | 1.2 | 11.7 | 8.4 | -0.4 | 0.1 | 10.2 |
| Other Labor Income | 318.4 | 326.0 | 332.6 | 337.8 | 344.1 | 351.4 | 358.8 | 366.8 |
| % Ch | 10.4 | 9.9 | 8.3 | 6.4 | 7.7 | 8.8 | 8.7 | 9.2 |
| Proprietor's Income | 410.9 | 412.8 | 412.8 | 438.4 | 444.4 | 438.8 | 420.3 | 462.9 |
| % Ch | 27.9 | 1.9 | 0.0 | 27.2 | 5.6 | -4.9 | -15.8 | 47.1 |
| Farm | 49.0 | 43.7 | 38.8 | 46.0 | 49.6 | 39.4 | 15.8 | 44.4 |
| % Ch | 221.3 | -36.7 | -37.9 | 97.6 | 35.2 | -60.2 | -97.4 | 6136.0 |
| Nonfarm | 361.9 | 369.1 | 374.0 | 392.4 | 394.8 | 399.4 | 404.5 | 418.5 |
| % Ch | 14.6 | 8.2 | 5.4 | 21.2 | 2.5 | 4.7 | 5.2 | 14.6 |
| Less: Pers Cont. For Social Ins. | 244.4 | 247.0 | 249.9 | 253.4 | 253.2 | 261.5 | 263.8 | 266.6 |
| % Ch | 10.1 | 4.3 | 4.8 | 5.7 | -0.3 | 13.8 | 3.6 | 4.3 |
| Dividends/Int./Rent | 813.9 | 821.5 | 812.0 | 835.1 | 847.7 | 840.4 | 843.2 | 842.1 |
| % Ch | -5.4 | 3.8 | -4.5 | 11.9 | 6.2 | -3.4 | 1.3 | -0.5 |
| Transfer Payments | 839.6 | 855.3 | 867.5 | 878.4 | 898.6 | 910.4 | 921.6 | 931.0 |
| % Ch | 23.7 | 7.7 | 5.8 | 5.1 | 9.5 | 5.4 | 5.0 | 4.1 |

TABLE 3.2

**U.S. Personal Income by Component**
Forecast 1995 to 1997

| | 1994:1 | 1994:2 | 1994:3 | 1994:4 | 1995:1 | 1995:2 | 1995:3 | 1995:4 |
|---|---|---|---|---|---|---|---|---|
| Personal Income | 5555.8 | 5659.9 | 5734.5 | 5856.6 | 5962.0 | 6008.1 | 6077.5 | 6152.8 |
| % Ch | 5.3 | 7.7 | 5.4 | 8.8 | 7.4 | 3.1 | 4.7 | 5.1 |
| Total Wage and Salary Disbursements | 3208.3 | 3257.2 | 3293.9 | 3356.4 | 3403.4 | 3422.3 | 3464.8 | 3508.0 |
| % Ch | 7.8 | 6.2 | 4.6 | 7.8 | 5.7 | 2.2 | 5.1 | 5.1 |
| Nonwage Personal Income | 2347.5 | 2402.7 | 2440.6 | 2500.2 | 2558.6 | 2585.8 | 2612.7 | 2644.8 |
| % Ch | 1.9 | 9.7 | 6.5 | 10.1 | 9.7 | 4.3 | 4.2 | 5.0 |
| Other Labor Income | 373.2 | 378.4 | 383.7 | 388.7 | 399.6 | 403.9 | 407.8 | 415.9 |
| % Ch | 7.2 | 5.7 | 5.7 | 5.3 | 11.7 | 4.4 | 3.9 | 8.3 |
| Proprietor's Income | 471.0 | 471.2 | 466.9 | 485.7 | 493.6 | 487.2 | 490.0 | 500.9 |
| % Ch | 7.2 | 0.2 | -3.6 | 17.1 | 6.7 | -5.1 | 2.4 | 9.2 |
| Farm | 47.2 | 39.3 | 29.8 | 41.7 | 44.4 | 35.0 | 30.6 | 43.7 |
| % Ch | 27.7 | -51.9 | -66.9 | 283.4 | 28.5 | -61.4 | -41.5 | 317.6 |
| Nonfarm | 423.8 | 431.9 | 437.1 | 444.0 | 449.2 | 452.2 | 459.4 | 457.2 |
| % Ch | 5.2 | 7.9 | 4.9 | 6.5 | 4.8 | 2.7 | 6.6 | -2.0 |
| Less: Pers Cont. For Social Ins. | 276.3 | 279.9 | 282.9 | 286.6 | 293.8 | 295.4 | 298.3 | 300.5 |
| % Ch | 15.4 | 5.3 | 4.4 | 5.3 | 10.4 | 2.2 | 4.0 | 3.1 |
| Dividends/Int./Rent | 832.1 | 875.2 | 903.7 | 932.8 | 954.5 | 971.6 | 980.7 | 989.1 |
| % Ch | -4.7 | 22.4 | 13.7 | 13.5 | 9.6 | 7.4 | 3.8 | 3.4 |
| Transfer Payments | 947.4 | 957.6 | 969.0 | 979.7 | 1004.8 | 1018.6 | 1032.5 | 1039.4 |
| % Ch | 7.2 | 4.4 | 4.8 | 4.5 | 10.6 | 5.6 | 5.6 | 2.7 |

TABLE 3.2

**U.S. Personal Income by Component**
Forecast 1995 to 1997

| | 1996:1 | 1996:2 | 1996:3 | 1996:4 | 1997:1 | 1997:2 | 1997:3 | 1997:4 |
|---|---|---|---|---|---|---|---|---|
| Personal Income | 6235.6 | 6307.4 | 6374.3 | 6454.6 | 6543.3 | 6612.3 | 6676.6 | 6752.5 |
| % Ch | 5.5 | 4.7 | 4.3 | 5.1 | 5.6 | 4.3 | 3.9 | 4.6 |
| Total Wage and Salary Disbursements | 3559.3 | 3601.4 | 3642.5 | 3684.3 | 3729.8 | 3774.3 | 3816.0 | 3858.0 |
| % Ch | 6.0 | 4.8 | 4.6 | 4.7 | 5.0 | 4.9 | 4.5 | 4.5 |
| Nonwage Personal Income | 2676.3 | 2706.0 | 2731.8 | 2770.3 | 2813.4 | 2837.9 | 2860.6 | 2894.5 |
| % Ch | 4.9 | 4.5 | 3.9 | 5.8 | 6.4 | 3.5 | 3.2 | 4.8 |
| Other Labor Income | 418.3 | 425.8 | 433.2 | 440.4 | 448.3 | 456.1 | 463.8 | 471.8 |
| % Ch | 2.3 | 7.3 | 7.1 | 6.9 | 7.3 | 7.2 | 7.0 | 7.1 |
| Proprietor's Income | 503.3 | 506.1 | 501.7 | 516.1 | 520.6 | 525.2 | 523.5 | 536.3 |
| % Ch | 1.9 | 2.3 | -3.5 | 12.0 | 3.6 | 3.5 | -1.2 | 10.1 |
| Farm | 44.4 | 43.4 | 34.5 | 44.5 | 43.9 | 43.4 | 36.3 | 43.6 |
| % Ch | 5.7 | -8.7 | -59.7 | 174.6 | -5.1 | -4.0 | -51.3 | 108.6 |
| Nonfarm | 459.0 | 462.8 | 467.1 | 471.7 | 476.8 | 481.7 | 487.2 | 492.7 |
| % Ch | 1.6 | 3.4 | 3.8 | 3.9 | 4.4 | 4.2 | 4.7 | 4.6 |
| Less: Pers Cont. for Social Ins. | 306.9 | 310.4 | 314.0 | 316.9 | 322.9 | 326.7 | 330.3 | 334.4 |
| % Ch | 8.7 | 4.6 | 4.7 | 3.8 | 7.7 | 4.9 | 4.5 | 5.0 |
| Dividends/Int./Rent | 1001.0 | 1011.4 | 1025.6 | 1038.0 | 1052.8 | 1060.1 | 1071.0 | 1081.3 |
| % Ch | 4.9 | 4.2 | 5.7 | 4.9 | 5.8 | 2.8 | 4.2 | 3.9 |
| Transfer Payments | 1060.6 | 1073.1 | 1085.4 | 1092.7 | 1114.6 | 1123.3 | 1132.6 | 1139.4 |
| % Ch | 8.4 | 4.8 | 4.7 | 2.7 | 8.2 | 3.2 | 3.3 | 2.4 |

TABLE 3.3

**Washington Personal Income by Component**
Forecast 1995 to 1997

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Personal Income | 94.420 | 101.207 | 109.702 | 114.842 | 120.444 | 127.643 | 134.744 | 142.411 |
| % Ch | 10.0 | 7.2 | 8.4 | 4.7 | 4.9 | 6.0 | 5.6 | 5.7 |
| Total Wage and Salary Disbursements | 54.138 | 57.961 | 62.934 | 64.636 | 67.688 | 71.430 | 75.693 | 80.100 |
| % Ch | 10.8 | 7.1 | 8.6 | 2.7 | 4.7 | 5.5 | 6.0 | 5.8 |
| Manufacturing | 11.867 | 11.731 | 12.360 | 12.074 | 12.318 | 12.602 | 13.081 | 13.680 |
| % Ch | 7.6 | -1.1 | 5.4 | -2.3 | 2.0 | 2.3 | 3.8 | 4.6 |
| Nondurable Manufacturing | 3.030 | 2.825 | 2.962 | 3.116 | 3.304 | 3.440 | 3.594 | 3.789 |
| % Ch | 9.5 | -6.8 | 4.8 | 5.2 | 6.1 | 4.1 | 4.5 | 5.4 |
| Durable Manufacturing | 8.836 | 8.905 | 9.399 | 8.959 | 9.014 | 9.162 | 9.487 | 9.891 |
| % Ch | 7.0 | 0.8 | 5.5 | -4.7 | 0.6 | 1.6 | 3.5 | 4.3 |
| Nonmanufacturing | 39.763 | 43.571 | 47.805 | 49.814 | 52.534 | 55.880 | 59.555 | 63.234 |
| % Ch | 11.7 | 9.6 | 9.7 | 4.2 | 5.5 | 6.4 | 6.6 | 6.2 |
| Other Private Wages | 0.583 | 0.639 | 0.654 | 0.627 | 0.655 | 0.687 | 0.742 | 0.796 |
| % Ch | 21.5 | 9.6 | 2.4 | -4.1 | 4.4 | 4.9 | 8.0 | 7.3 |
| Farm Wages | 0.468 | 0.459 | 0.451 | 0.483 | 0.527 | 0.552 | 0.571 | 0.592 |
| % Ch | 18.6 | -1.9 | -1.8 | 7.1 | 9.1 | 4.9 | 3.4 | 3.6 |
| Military Wages | 1.459 | 1.562 | 1.665 | 1.638 | 1.654 | 1.708 | 1.744 | 1.798 |
| % Ch | 5.6 | 7.1 | 6.6 | -1.6 | 1.0 | 3.3 | 2.1 | 3.1 |
| Nonwage Personal Income | 40.282 | 43.246 | 46.768 | 50.206 | 52.757 | 56.213 | 59.051 | 62.311 |
| % Ch | 9.0 | 7.4 | 8.1 | 7.4 | 5.1 | 6.6 | 5.0 | 5.5 |
| Other Labor Income | 4.779 | 5.389 | 6.085 | 6.550 | 7.049 | 7.605 | 8.077 | 8.745 |
| % Ch | 13.2 | 12.8 | 12.9 | 7.6 | 7.6 | 7.9 | 6.2 | 8.3 |
| Proprietor's Income | 8.799 | 9.337 | 10.489 | 11.442 | 11.803 | 12.248 | 12.682 | 13.275 |
| % Ch | 2.0 | 6.1 | 12.3 | 9.1 | 3.2 | 3.8 | 3.5 | 4.7 |
| Farm | 0.838 | 0.890 | 1.072 | 1.299 | 0.876 | 0.846 | 0.943 | 0.951 |
| % Ch | -4.0 | 6.2 | 20.4 | 21.3 | -32.6 | -3.5 | 11.5 | 0.9 |
| Nonfarm | 7.961 | 8.447 | 9.418 | 10.143 | 10.927 | 11.403 | 11.739 | 12.324 |
| % Ch | 2.7 | 6.1 | 11.5 | 7.7 | 7.7 | 4.4 | 3.0 | 5.0 |
| Less: Pers. Cont. for Social Ins. | 4.348 | 4.605 | 4.949 | 5.152 | 5.532 | 5.872 | 6.202 | 6.591 |
| % Ch | 10.3 | 5.9 | 7.5 | 4.1 | 7.4 | 6.2 | 5.6 | 6.3 |
| Plus: Residence Adjustment | 0.905 | 0.982 | 1.062 | 1.140 | 1.244 | 1.356 | 1.430 | 1.509 |
| % Ch | 10.5 | 8.5 | 8.1 | 7.4 | 9.1 | 9.0 | 5.4 | 5.5 |
| Dividends/Int./Rent | 16.268 | 16.520 | 16.954 | 17.757 | 18.766 | 20.426 | 21.452 | 22.621 |
| % Ch | 10.6 | 1.5 | 2.6 | 4.7 | 5.7 | 8.9 | 5.0 | 5.4 |
| Transfer Payments | 13.881 | 15.623 | 17.129 | 18.471 | 19.428 | 20.449 | 21.613 | 22.751 |
| % Ch | 10.7 | 12.6 | 9.6 | 7.8 | 5.2 | 5.3 | 5.7 | 5.3 |
| State U.I. Benefits | 0.462 | 0.654 | 0.902 | 1.088 | 1.007 | 0.835 | 0.937 | 0.973 |
| % Ch | 21.2 | 41.5 | 37.8 | 20.6 | -7.4 | -17.0 | 12.2 | 3.8 |
| Other Transfers | 13.418 | 14.969 | 16.227 | 17.383 | 18.421 | 19.613 | 20.675 | 21.778 |
| % Ch | 10.4 | 11.6 | 8.4 | 7.1 | 6.0 | 6.5 | 5.4 | 5.3 |

TABLE 3.4

**Washington Personal Income by Component**
Forecast 1995 to 1997

| | 1992:1 | 1992:2 | 1992:3 | 1992:4 | 1993:1 | 1993:2 | 1993:3 | 1993:4 |
|---|---|---|---|---|---|---|---|---|
| Personal Income | 106.294 | 107.847 | 110.079 | 114.589 | 111.944 | 114.581 | 115.396 | 117.448 |
| % Ch | 9.1 | 6.0 | 8.5 | 17.4 | -8.9 | 9.8 | 2.9 | 7.3 |
| Total Wage and Salary Disbursements | 60.959 | 61.594 | 63.122 | 66.061 | 62.846 | 65.000 | 65.114 | 65.584 |
| % Ch | 9.9 | 4.2 | 10.3 | 20.0 | -18.1 | 14.4 | 0.7 | 2.9 |
| Manufacturing | 11.896 | 11.995 | 12.248 | 13.301 | 11.552 | 12.263 | 12.277 | 12.204 |
| % Ch | -3.7 | 3.4 | 8.7 | 39.1 | -43.1 | 27.0 | 0.5 | -2.4 |
| Nondurable Manufacturing | 2.865 | 2.912 | 2.975 | 3.094 | 2.957 | 3.169 | 3.128 | 3.208 |
| % Ch | -1.9 | 6.7 | 8.9 | 17.0 | -16.6 | 31.9 | -5.1 | 10.6 |
| Durable Manufacturing | 9.031 | 9.083 | 9.273 | 10.207 | 8.595 | 9.094 | 9.149 | 8.996 |
| % Ch | -4.3 | 2.3 | 8.6 | 46.8 | -49.7 | 25.3 | 2.4 | -6.5 |
| Nonmanufacturing | 46.214 | 46.816 | 48.072 | 50.116 | 48.615 | 49.947 | 50.107 | 50.588 |
| % Ch | 12.1 | 5.3 | 11.2 | 18.1 | -11.5 | 11.4 | 1.3 | 3.9 |
| Other Private Wages | 0.686 | 0.649 | 0.657 | 0.623 | 0.575 | 0.637 | 0.611 | 0.685 |
| % Ch | 67.5 | -19.9 | 5.0 | -19.1 | -27.4 | 50.6 | -15.4 | 58.0 |
| Farm Wages | 0.450 | 0.448 | 0.449 | 0.456 | 0.468 | 0.480 | 0.486 | 0.497 |
| % Ch | 7.4 | -1.8 | 0.9 | 6.4 | 10.9 | 10.7 | 5.1 | 9.4 |
| Military Wages | 1.713 | 1.686 | 1.696 | 1.565 | 1.636 | 1.673 | 1.633 | 1.610 |
| % Ch | 44.3 | -6.2 | 2.4 | -27.5 | 19.4 | 9.4 | -9.2 | -5.5 |
| Nonwage Personal Income | 45.335 | 46.253 | 46.957 | 48.528 | 49.098 | 49.581 | 50.282 | 51.864 |
| % Ch | 8.0 | 8.3 | 6.2 | 14.1 | 4.8 | 4.0 | 5.8 | 13.2 |
| Other Labor Income | 5.857 | 5.977 | 6.167 | 6.338 | 6.349 | 6.479 | 6.608 | 6.762 |
| % Ch | 13.9 | 8.5 | 13.3 | 11.6 | 0.7 | 8.4 | 8.2 | 9.7 |
| Proprietor's Income | 10.151 | 10.315 | 10.365 | 11.125 | 11.024 | 11.177 | 11.214 | 12.352 |
| % Ch | 7.9 | 6.6 | 2.0 | 32.7 | -3.6 | 5.7 | 1.3 | 47.2 |
| Farm | 1.061 | 1.040 | 0.925 | 1.260 | 1.115 | 1.205 | 1.062 | 1.815 |
| % Ch | -27.0 | -7.7 | -37.4 | 244.3 | -38.7 | 36.4 | -39.7 | 753.1 |
| Nonfarm | 9.090 | 9.275 | 9.440 | 9.865 | 9.909 | 9.972 | 10.152 | 10.537 |
| % Ch | 13.2 | 8.4 | 7.3 | 19.3 | 1.8 | 2.6 | 7.4 | 16.1 |
| Less: Pers. Cont. for Social Ins. | 4.845 | 4.881 | 4.991 | 5.080 | 5.028 | 5.168 | 5.180 | 5.233 |
| % Ch | 12.4 | 3.0 | 9.3 | 7.3 | -4.0 | 11.6 | 0.9 | 4.2 |
| Plus: Residence Adjustment | 1.031 | 1.057 | 1.074 | 1.084 | 1.105 | 1.128 | 1.151 | 1.176 |
| % Ch | 14.8 | 10.5 | 6.6 | 3.8 | 8.0 | 8.6 | 8.4 | 9.0 |
| Dividends/Int./Rent | 16.543 | 16.844 | 17.082 | 17.345 | 17.703 | 17.650 | 17.842 | 17.832 |
| % Ch | 3.1 | 7.5 | 5.8 | 6.3 | 8.5 | -1.2 | 4.4 | -0.2 |
| Transfer Payments | 16.598 | 16.941 | 17.260 | 17.716 | 17.945 | 18.315 | 18.647 | 18.975 |
| % Ch | 12.0 | 8.5 | 7.7 | 11.0 | 5.3 | 8.5 | 7.5 | 7.2 |
| State U.I. Benefits | 0.785 | 0.863 | 0.926 | 1.033 | 0.899 | 1.024 | 1.158 | 1.269 |
| % Ch | 61.8 | 46.1 | 32.6 | 54.9 | -42.6 | 68.3 | 63.5 | 44.2 |
| Other Transfers | 15.813 | 16.078 | 16.334 | 16.683 | 17.046 | 17.291 | 17.489 | 17.706 |
| % Ch | 10.0 | 6.9 | 6.5 | 8.8 | 9.0 | 5.9 | 4.7 | 5.1 |

TABLE 3.4

**Washington Personal Income by Component**
Forecast 1995 to 1997

| | 1994:1 | 1994:2 | 1994:3 | 1994:4 | 1995:1 | 1995:2 | 1995:3 | 1995:4 |
|---|---|---|---|---|---|---|---|---|
| Personal Income | 117.231 | 119.932 | 120.839 | 123.775 | 124.804 | 126.921 | 128.880 | 129.965 |
| % Ch | -0.7 | 9.5 | 3.1 | 10.1 | 3.4 | 7.0 | 6.3 | 3.4 |
| Total Wage and Salary Disbursements | 66.023 | 67.642 | 67.693 | 69.392 | 69.785 | 71.091 | 72.180 | 72.662 |
| % Ch | 2.7 | 10.2 | 0.3 | 10.4 | 2.3 | 7.7 | 6.3 | 2.7 |
| Manufacturing | 12.083 | 12.446 | 12.089 | 12.653 | 12.833 | 12.744 | 12.652 | 12.180 |
| % Ch | -3.9 | 12.6 | -11.0 | 20.0 | 5.8 | -2.7 | -2.9 | -14.1 |
| Nondurable Manufacturing | 3.203 | 3.263 | 3.319 | 3.432 | 3.419 | 3.426 | 3.435 | 3.482 |
| % Ch | -0.6 | 7.7 | 7.0 | 14.3 | -1.5 | 0.8 | 1.1 | 5.5 |
| Durable Manufacturing | 8.880 | 9.183 | 8.770 | 9.221 | 9.414 | 9.318 | 9.216 | 8.699 |
| % Ch | -5.1 | 14.4 | -16.8 | 22.2 | 8.6 | -4.0 | -4.3 | -20.6 |
| Nonmanufacturing | 51.125 | 52.411 | 52.761 | 53.840 | 54.037 | 55.407 | 56.570 | 57.506 |
| % Ch | 4.3 | 10.4 | 2.7 | 8.4 | 1.5 | 10.5 | 8.7 | 6.8 |
| Other Private Wages | 0.649 | 0.626 | 0.651 | 0.693 | 0.648 | 0.686 | 0.701 | 0.713 |
| % Ch | -19.4 | -13.4 | 17.0 | 28.4 | -23.6 | 25.6 | 8.8 | 7.3 |
| Farm Wages | 0.516 | 0.525 | 0.530 | 0.536 | 0.544 | 0.551 | 0.555 | 0.560 |
| % Ch | 16.2 | 7.2 | 3.9 | 4.6 | 6.1 | 5.2 | 3.2 | 3.0 |
| Military Wages | 1.650 | 1.634 | 1.662 | 1.670 | 1.723 | 1.703 | 1.703 | 1.703 |
| % Ch | 10.3 | -3.8 | 7.0 | 1.9 | 13.3 | -4.6 | 0.0 | 0.0 |
| Nonwage Personal Income | 51.208 | 52.290 | 53.146 | 54.383 | 55.019 | 55.830 | 56.700 | 57.304 |
| % Ch | -5.0 | 8.7 | 6.7 | 9.6 | 4.8 | 6.0 | 6.4 | 4.3 |
| Other Labor Income | 6.816 | 7.044 | 7.078 | 7.256 | 7.403 | 7.557 | 7.643 | 7.819 |
| % Ch | 3.2 | 14.1 | 1.9 | 10.4 | 8.4 | 8.6 | 4.6 | 9.5 |
| Proprietor's Income | 11.556 | 11.719 | 11.699 | 12.237 | 12.035 | 12.071 | 12.383 | 12.505 |
| % Ch | -23.4 | 5.8 | -0.7 | 19.7 | -6.4 | 1.2 | 10.7 | 4.0 |
| Farm | 0.861 | 0.847 | 0.695 | 1.102 | 0.803 | 0.787 | 0.827 | 0.966 |
| % Ch | -94.9 | -6.3 | -54.7 | 532.1 | -71.8 | -7.7 | 21.7 | 86.7 |
| Nonfarm | 10.695 | 10.872 | 11.004 | 11.135 | 11.232 | 11.284 | 11.556 | 11.539 |
| % Ch | 6.1 | 6.8 | 4.9 | 4.8 | 3.5 | 1.9 | 10.0 | -0.6 |
| Less: Pers. Cont. for Social Ins. | 5.382 | 5.527 | 5.549 | 5.669 | 5.764 | 5.838 | 5.912 | 5.974 |
| % Ch | 11.9 | 11.2 | 1.6 | 8.9 | 6.9 | 5.2 | 5.2 | 4.3 |
| Plus: Residence Adjustment | 1.207 | 1.221 | 1.254 | 1.294 | 1.329 | 1.349 | 1.365 | 1.382 |
| % Ch | 11.0 | 4.7 | 11.3 | 13.4 | 11.3 | 6.2 | 4.9 | 4.9 |
| Dividends/Int./Rent | 17.861 | 18.457 | 19.078 | 19.666 | 20.035 | 20.353 | 20.562 | 20.756 |
| % Ch | 0.7 | 14.0 | 14.2 | 12.9 | 7.7 | 6.5 | 4.2 | 3.8 |
| Transfer Payments | 19.150 | 19.376 | 19.586 | 19.599 | 19.981 | 20.338 | 20.660 | 20.816 |
| % Ch | 3.7 | 4.8 | 4.4 | 0.3 | 8.0 | 7.3 | 6.5 | 3.1 |
| State U.I. Benefits | 1.103 | 1.058 | 1.032 | 0.833 | 0.733 | 0.826 | 0.883 | 0.900 |
| % Ch | -42.9 | -15.3 | -9.5 | -57.6 | -40.0 | 61.3 | 30.3 | 8.3 |
| Other Transfers | 18.047 | 18.318 | 18.554 | 18.766 | 19.248 | 19.512 | 19.777 | 19.915 |
| % Ch | 7.9 | 6.1 | 5.3 | 4.6 | 10.7 | 5.6 | 5.5 | 2.8 |

TABLE 3.4

**Washington Personal Income by Component**
Forecast 1995 to 1997

| | 1996:1 | 1996:2 | 1996:3 | 1996:4 | 1997:1 | 1997:2 | 1997:3 | 1997:4 |
|---|---|---|---|---|---|---|---|---|
| Personal Income | 132.232 | 133.828 | 135.542 | 137.375 | 139.560 | 141.445 | 143.325 | 145.312 |
| % Ch | 7.2 | 4.9 | 5.2 | 5.5 | 6.5 | 5.5 | 5.4 | 5.7 |
| Total Wage and Salary Disbursements | 74.293 | 75.165 | 76.148 | 77.166 | 78.339 | 79.539 | 80.681 | 81.842 |
| % Ch | 9.3 | 4.8 | 5.3 | 5.5 | 6.2 | 6.3 | 5.9 | 5.9 |
| Manufacturing | 12.911 | 13.015 | 13.134 | 13.263 | 13.424 | 13.596 | 13.763 | 13.937 |
| % Ch | 26.3 | 3.2 | 3.7 | 4.0 | 4.9 | 5.2 | 5.0 | 5.2 |
| Nondurable Manufacturing | 3.527 | 3.571 | 3.616 | 3.663 | 3.714 | 3.765 | 3.813 | 3.863 |
| % Ch | 5.3 | 5.1 | 5.2 | 5.3 | 5.7 | 5.6 | 5.2 | 5.4 |
| Durable Manufacturing | 9.385 | 9.444 | 9.518 | 9.600 | 9.710 | 9.831 | 9.950 | 10.074 |
| % Ch | 35.5 | 2.6 | 3.2 | 3.5 | 4.6 | 5.1 | 5.0 | 5.1 |
| Nonmanufacturing | 58.349 | 59.102 | 59.950 | 60.820 | 61.757 | 62.767 | 63.722 | 64.690 |
| % Ch | 6.0 | 5.3 | 5.9 | 5.9 | 6.3 | 6.7 | 6.2 | 6.2 |
| Other Private Wages | 0.725 | 0.735 | 0.747 | 0.760 | 0.776 | 0.789 | 0.803 | 0.817 |
| % Ch | 6.7 | 6.1 | 6.6 | 7.1 | 8.6 | 7.0 | 6.9 | 7.2 |
| Farm Wages | 0.564 | 0.569 | 0.574 | 0.579 | 0.584 | 0.589 | 0.594 | 0.600 |
| % Ch | 3.3 | 3.5 | 3.5 | 3.5 | 3.8 | 3.6 | 3.5 | 3.6 |
| Military Wages | 1.744 | 1.744 | 1.744 | 1.744 | 1.798 | 1.798 | 1.798 | 1.798 |
| % Ch | 10.0 | 0.0 | 0.0 | 0.0 | 13.0 | 0.0 | 0.0 | 0.0 |
| Nonwage Personal Income | 57.939 | 58.663 | 59.393 | 60.209 | 61.221 | 61.906 | 62.644 | 63.471 |
| % Ch | 4.5 | 5.1 | 5.1 | 5.6 | 6.9 | 4.5 | 4.9 | 5.4 |
| Other Labor Income | 7.859 | 7.996 | 8.149 | 8.302 | 8.476 | 8.655 | 8.833 | 9.017 |
| % Ch | 2.0 | 7.2 | 7.9 | 7.7 | 8.6 | 8.7 | 8.5 | 8.6 |
| Proprietor's Income | 12.518 | 12.634 | 12.673 | 12.902 | 13.039 | 13.193 | 13.307 | 13.559 |
| % Ch | 0.4 | 3.8 | 1.2 | 7.4 | 4.3 | 4.8 | 3.5 | 7.8 |
| Farm | 0.972 | 0.962 | 0.867 | 0.968 | 0.966 | 0.966 | 0.897 | 0.975 |
| % Ch | 2.6 | -4.1 | -34.0 | 55.4 | -0.8 | -0.3 | -25.6 | 39.8 |
| Nonfarm | 11.546 | 11.672 | 11.805 | 11.934 | 12.073 | 12.228 | 12.410 | 12.584 |
| % Ch | 0.2 | 4.5 | 4.6 | 4.4 | 4.8 | 5.2 | 6.1 | 5.7 |
| Less: Pers. Cont. for Social Ins. | 6.093 | 6.161 | 6.241 | 6.312 | 6.445 | 6.543 | 6.636 | 6.739 |
| % Ch | 8.2 | 4.6 | 5.3 | 4.6 | 8.7 | 6.2 | 5.8 | 6.3 |
| Plus: Residence Adjustment | 1.400 | 1.420 | 1.440 | 1.459 | 1.479 | 1.499 | 1.519 | 1.539 |
| % Ch | 5.5 | 5.9 | 5.7 | 5.5 | 5.5 | 5.6 | 5.5 | 5.5 |
| Dividends/Int./Rent | 21.025 | 21.273 | 21.605 | 21.904 | 22.257 | 22.461 | 22.745 | 23.020 |
| % Ch | 5.3 | 4.8 | 6.4 | 5.6 | 6.6 | 3.7 | 5.2 | 4.9 |
| Transfer Payments | 21.230 | 21.500 | 21.768 | 21.954 | 22.414 | 22.640 | 22.876 | 23.074 |
| % Ch | 8.2 | 5.2 | 5.1 | 3.5 | 8.7 | 4.1 | 4.2 | 3.5 |
| State U.I. Benefits | 0.918 | 0.937 | 0.944 | 0.951 | 0.959 | 0.968 | 0.978 | 0.987 |
| % Ch | 8.1 | 8.6 | 2.7 | 3.0 | 3.4 | 3.9 | 4.0 | 4.1 |
| Other Transfers | 20.312 | 20.562 | 20.824 | 21.003 | 21.456 | 21.672 | 21.899 | 22.087 |
| % Ch | 8.2 | 5.0 | 5.2 | 3.5 | 8.9 | 4.1 | 4.3 | 3.5 |

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